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Migratory Shore and Upland Game Bird Working Group

Spring and Fall Meeting Minutes - 2002

International Association of Fish and Wildlife Agencies

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Migratory Shore and Upland Game Bird Working Group

Spring Meeting Minutes

International Association of Fish and Wildlife Agencies
Bird Conservation Committee
Dallas, Texas
April 4, 2002

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INTRODUCTION

These minutes were prepared by David Dolton from a taped recording of the meeting and from reports submitted by several speakers. They are meant to be a summarization of the discussions rather than a verbatim transcription of all presentations. Chairman Ron George (TX) opened the meeting at 1:00 p.m.

WMGBR REVIEW COMMITTEE

Bob Boyd (PA), Chairman of the Webless Migratory Game Bird Research (WMGBR) Review Committee, reported that 6 proposals were submitted and 4 projects were selected for funding in 2002 through the WMGBR Program (**Appendix A**). Bob Boyd *moved that the recommendations of the WMGBR Review Committee be approved.* The motion passed unanimously.

Ron George reported that he had written Steve Williams, Director of the U.S. Fish and Wildlife Service, asking for an increase in the WMGBR Program funding level to $1 million annually (**Appendix B**).

Pat Ruble (OH) expressed concern about the relatively few number of proposals being submitted which, this year, was only $322,000. David Dolton (USFWS) responded that people are discouraged from applying for funds since only a relatively small proportion of a project's overall cost is available from WMGBR funds. Currently, many studies are relatively small-scale. With additional funds, we would be able to address more large-scale, comprehensive endeavors.

Cover photos: Top: White-winged doves (*Photo by Roy Tomlinson*). Left: Nestling whitewings feeding on food regurgitated from adult's crop Right: Whitewing feeding flight in grain sorghum field near McCook, Texas in 1950. (*Photos by George B. Saunders*). Bottom: Whitewings on bird feeder in Austin, Texas (*Photo by Ronnie George).*

DOVE ISSUES

Concurrent Resolution.– David Dolton (USFWS) referenced his report on House Concurrent Resolutions 196 and 275 in the Fall Meeting Minutes – 2001. Resolution 275 recommended that hunting be allowed during the last week in August in states north of 37 degrees north latitude. At that time, it was thought the matter died. However, on February 27, 2002, it was "ordered favorably reported to the House of Representatives by unanimous consent." Later, it was passed by the House of Representatives and sent to the Senate. David stressed that even if it is passes the Senate, everyone should keep in mind that this is a non-binding resolution.

After having discussed the matter with a Congressional staff member, David said it was frustrating seeing a statement in the Resolution that the modification would not adversely affect dove populations. He had informed the staffer that there was no way to be sure, but that an earlier opening would likely cause an adverse impact, particularly since dove populations are apparently declining. David also learned that one reason that it was brought up for a vote in the House was because they needed "filler" on a slow day!

National Mourning Dove Strategic Management Plan.– In the Fall Meeting Minutes – 2001, David reported on progress towards developing a strategic mourning dove management plan and the formation of a National Mourning Dove Planning Committee. This approach has now been approved in concept by Technical Committees in the 3 Management Units. The Planning Committee will work this year to finalize a draft to be submitted to each Management Unit Technical Committee for review and approval.

Eastern Management Unit Dove Technical Committee.– The formation of an Eastern Management Unit Dove Technical Committee, composed of all states in the Unit, has been quite positive. One important task is the development of operating procedures for dealing with the Atlantic and Mississippi Flyway Councils via the Directors Dove Coordinating Committee.

White-winged Dove Expansion.– Whitewings are continuing to expand in distribution and density in the central United States. A recommendation was passed by the Central Flyway Webless Migratory Game Bird Technical Committee and the Central Flyway Council to allow the take of whitewings and mourning doves in an aggregate bag in those states that choose to select this option. [This recommendation was later approved by the U. S. Fish and Wildlife Service Regulations Committee.]

PILOT REWARD BANDING STUDY OF MOURNING DOVES

John H. Schulz (MO) stated that 3 things are occurring simultaneously with respect to improving harvest management for mourning doves. One is the development of a strategic management plan, a second is the development of mourning dove population models by David Otis (IA Cooperative Fish and Wildlife Research Unit), and the third is the development of a proposal to conduct a pilot reward banding study.

John distributed the most recent copy of a proposal prepared by David Otis to conduct the banding study that is necessary to obtain some current information such as harvest rates and band reporting rates. Current estimates are more than 30 years old since doves have not been banded on a large scale since the late 1960s and early 1970s. A pilot study is being proposed that can be conducted easily rather than planning an expensive, large-scale banding effort. The proposal will be submitted to the Webless Migratory Game Bird Research Program for funding of the rewards.

John distributed a recommendation for conceptual support for the study. He asked the Working Group for approval to show that this is a good step in the right direction. Vernon Bevill (TX) *moved to accept the recommendation* (**Appendix C**). Mike Johnson (ND) recommended that reward bands should not be advertised to avoid increasing harvest rates. The banding study will be advertised, but not the reward portion. Pat Ruble (OH) stressed that the effort would be spread out among at least 23 states. After additional discussion to clarify specifics related to the study, the motion was passed unanimously.

HARVEST INFORMATION PROGRAM

Jeff Ver Steeg (CO) reported that the recommendations of the Ad Hoc Committee on HIP have been finalized. In the *Fall Meeting Minutes – 2001*, he had reviewed the substance of those recommendations. In March, the Executive Summary of the HIP report and abstracts of each individual report were sent to each state Director as an informational, not action, item at this time. Additionally, a courtesy copy was sent to the Chairmen of this Working Group, the Waterfowl Working Group, and the Bird Conservation and Law Enforcement Committees. Individual reports have been sent to the senior authors for final review.

The initial goal was to have the report approved last fall, but there were unavoidable delays. Now, the plan is to have the report finalized and published by June, distributed to the Directors, and ask for their approval next September. This delay is causing concern about the recommendations relating to Law Enforcement issues. The Law Enforcement Committee wants formal approval by the IAFWA before taking action. It is hoped that some action can be taken this year so enforcement of HIP will not have to be delayed another year.

NON-TOXIC SHOT TASK FORCE

John Smith (MO) reported that the Task Force met yesterday and had a good discussion, primarily related to lead toxicity in the environment. Based on existing information, the population-wide effects of lead ingestion in mourning doves is unknown, but there are specific situations where lead shot poisoning has been documented. There was a project that Missouri had submitted to the WMGBR Program, but had to be withdrawn due to funding restraints in the state. It is believed that the need to assess potential impacts of lead in the environment is larger than only 1 state. Consequently, support for a larger-scale study needs to be sanctioned by this Working Group and submitted to the IAFWA for support. John complimented John H. Schulz (MO) for preparing a recommendation which will be discussed in detail later.

John Schulz summarized the results of a study he and others conducted on spent-shot availability [see *Schulz, J.H., J.J. Millspaugh, B.E. Washburn, G.R. Wester, J.T. Lanigan III, and J.C. Franson. 2002. Spent-shot availability and ingestion on areas managed for mourning doves. Wildlife Society Bulletin 30(1):112-120*]. They learned that they have to think differently now about why few birds are picked up with lead shot. They believe that doves feeding in fields hunted with lead shot may succumb to acute lead toxicosis and thus become unavailable to harvest, resulting in an under-estimate of ingestion rates. The next step is to conduct experimental dosing studies, then moving on to doing studies on selection, based on food type, and shot size and type, and eventually looking at experimentally instituting a non-toxic shot regulation and looking at differences in birds other than mourning doves both before and after hunting season.

John Smith submitted a recommendation (**Appendix D**) prepared by the Task Force. He *moved that the recommendation be approved.*

Jay Roberson (TX) expressed concern about the ramifications of building up this issue in Texas in light of the recent letter from the Humane Society to the U.S. Fish and Wildlife Service regarding wounding loss in waterfowl, some of which relates to non-toxic shot. Unless one knows how to shoot non-toxic shot, one can have a greater wounding loss. Conversely, there is the argument that lead shot increases wounding loss. Jay urged approval of the recommendation, but would like to see it broadened to include a companion study related to the lethality of lead and steel.

Ron George stated that the same kind of arguments were made when steel shot was first required for waterfowl hunting. He felt that it would be appropriate to look at similar issues for mourning doves.

John Smith addressed the lethality issue by stating that he serves on the Board of Directors for the Cooperative North American Shotgunning Education Program (CONSEP). One of the primary focuses of that group is to establish an education program, primarily through videos, that will heighten the awareness of the crippling loss issue in waterfowl and explain what the individual hunter can do to reduce wounding. Lethality tables have been included for some upland species like pheasants. John will take the suggestion to develop tables for mourning doves back to CONSEP. It is related, but is a different issue. Ron suggested that Jay work with John on the issue.

Sam Lawry (AZ) questioned "wildlife" as being too broad. John Smith responded that the issue is bigger than game birds. For example, rabbit hunters have expressed concern about lead deposition on public hunting areas in Missouri.

John Schulz stressed that the purpose of the recommendation is to raise awareness of the issue and for the Working Group to take a leadership role at the national level.

The motion passed unanimously.

WOODCOCK TASK FORCE

Jim Kelley (USFWS) reported that the Task Force met yesterday and had 26 people in attendance which was very encouraging. During the past several months, there has been a great deal of input from many people who have expressed a high level of interest in this group.

Wayne MacCallum (MA) expressed an interest in this Task Force and was asked to serve as Co-chairman of the group. Everyone felt that he would be a valuable liaison to the Flyway Councils.

Much of the time was spent reviewing the outline for a Woodcock Conservation Plan. That outline was sent to the webless committee chairmen of the technical sections of the Atlantic, Mississippi, and Central Flyways in January. A copy was also forwarded to the chairmen of those Flyway Councils as a courtesy for their information. There was a lengthy discussion on population goals. Woodcock Singing-ground Survey (SGS) data will be used to develop density maps for woodcock that will be translated into population goals. The group feels that these maps are more "sellable" than graphs showing declining trends.

The Plan will take a tiered approach using the Central and Eastern Units as a starting approach to maintain contact with the Flyway Councils. From there, they will step down to Bird Conservation Region (BCR) action plans, followed by state action plans.

Current research includes studies on woodcock wintering habitat use, both nocturnal and diurnal, by students at Stephen F. Austin University in Texas. Minnesota completed the first year of a mortality study and Wisconsin and Michigan will begin their portions of the study in fall 2002. Dave Krementz (USGS) is tracking birds as they migrate south from the Great Lakes area and will study habitat use by those birds as they move to the wintering grounds.

The Task Force sees a need to more fully involve biologists from private timber companies. This is critical to the development of the Plan. They also see a need for input by the U.S. Fish and Wildlife Service and state wildlife agencies to the U.S. Forest Service's (USFS) forest management plans, particularly in the Great Lakes region. Many of those forest plans are currently being updated. Jim was told that the only group complaining about decreased emphasis on aspen management is the Ruffed Grouse Society. There is little input from other natural resource agencies. The Task Force discussed the preparation of letters to the USFS concerning this issue.

The target date for completion of the Woodcock Conservation Plan has not been decided. Jim stated that he hoped to have a draft of the conceptual portions of the Plan (overall goals and objectives) by the fall. Also, outreach material will be prepared as soon as possible rather than waiting until the Conservation Plan has been completed.

Jim Woehr (WMI) asked if Jim or anyone else knew the USFS deadline for finalizing the forest management plans. Waiting until September to finalize letters may be too late. Dan Dessecker (RGS) recommended sending letters in late June after a new Forest Supervisor is on board and volunteered to work with Jim to draft the letters. This was acceptable; letters will be drafted for Ron George's signature

Ralph Morgenweck (USFWS) stated that sending a letter is not very effective by itself. He recommended involvement by others and personal meetings by USFWS Regional Directors and state Directors with Regional Forest Supervisors who are in the midst of plan revisions. That personal touch is much more effective.

Pat Ruble (OH) suggested inviting Forest Supervisors to a Woodcock Task Force meeting.

NORTH AMERICAN BIRD CONSERVATION INITIATIVE

David Pashley, National Coordinator, NABCI– United States, reported that a Tri-National Memorandum of Understanding (MOU) has been drafted and circulated for signature by Canada, the U.S., and Mexico to cement the commitment of the 3 governments to the conservation of birds in general. This is particularly important for Mexico. The draft was circulated to all state wildlife agencies.

This MOU will be followed with tri-national demonstration projects where projects on the wintering grounds for migratory birds will be tied to projects on the breeding range. This is relevant to birds this group is concerned with like white-winged doves. For example, it is arguable that wintering habitat for whitewings is critically important, and it may be possible to generate resources for Tamaulipan and Sororan brushland projects.

There has been a significant broadening of Joint Venture (JV) projects to include all birds. Migratory shore and upland birds will benefit from this new approach. There is a need to increase sources of funds to be able to carry out the projects. Additional staff are needed to assist JVs in their broadened mandate and to increase the capacity to set a biological foundation to effectively deliver conservation in habitats in which they have not traditionally worked. There are targeted efforts in Bird Conservation Regions throughout the country to insert staff to assist JVs. A number of states have begun alliances to address issues related to all birds within their area.

The Marshbird Workshop is an example of people from various groups coming together for a common purpose. This spirit of cooperation is one of the main objectives of the NABCI Committee. Steve Williams, the new Director of the U.S. Fish and Wildlife Service, is supportive of NABCI and partnerships.

There is a State Subcommittee of NABCI now that includes Chairs of all of the Working Groups as members. Ron George added that he attended the last meeting of the NABCI Committee. He pointed out that our Working Group was not included as a member of the NABCI Council. Jim Woehr stated that Ron should be included as a member while Chairs of the other IAFWA Working Groups are members. David responded that a letter should be written to the Chair of the NABCI Committee requesting it. Jim volunteered to write the letter.

STATUS OF WHITE-WINGED DOVES IN NORTHEASTERN MEXICO

by Roy Tomlinson (USFWS– retired) and
Gary Waggerman (TX)

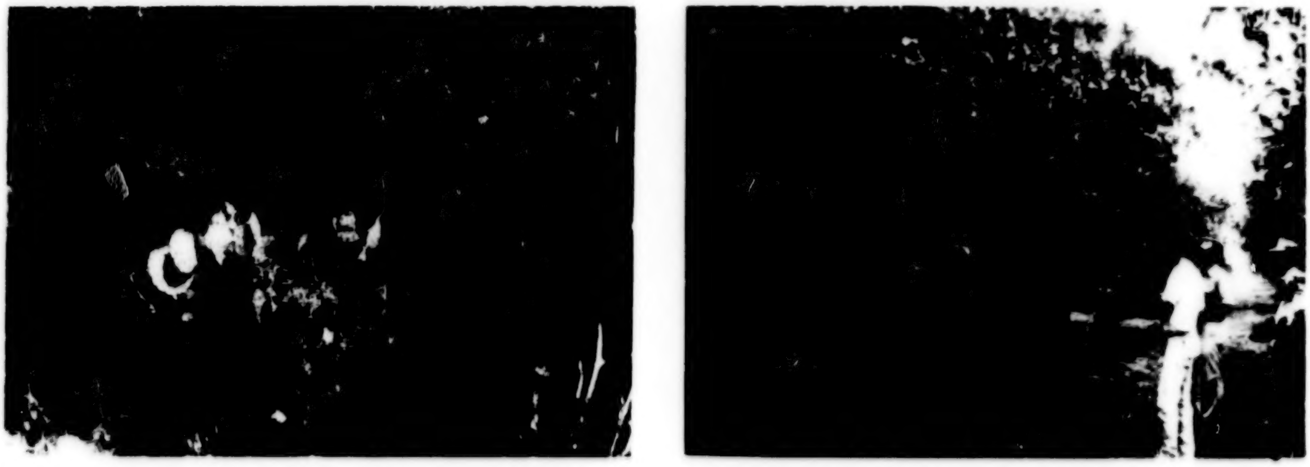
Distribution

The two major white-winged dove subspecies that nest in the southern U.S. and northern Mexico are the Eastern (*Zenaida asiatica asiatica)* and Western (*Z. a. mearnsi*). Although the Eastern race has expanded its distribution northward of Texas, it primarily nests from about Dallas south into the Lower Rio Grande Valley of Texas and in 4 northeastern states of Mexico, particularly Tamaulipas, immediately south of Brownsville. The Western race nests in southern Arizona, southwestern New Mexico and mainly in the two northwestern Mexican States of Sonora and Sinaloa. The migration routes and wintering areas of the two subspecies are mutually exclusive. Eastern doves leave their nesting areas in Texas and northeastern Mexico and travel south along the East Coast of Mexico where they winter from the southern Mexican States of Tabasco, Chiapas, and southwestern Oaxaca through Central America into Costa Rica. The western birds migrate along the West Coast of Mexico into the States of Guerrero and northwestern Oaxaca where they stop to winter. Thus, individuals of these subspecies rarely meet on either the breeding or wintering grounds.

Nesting

Eastern white-winged doves nest in the northern Mexican States of Coahuila, Nuevo León, Tamaulipas, and Vera Cruz. Tamaulipas traditionally has supported the largest numbers of whitewings throughout the past 30-40 years because of the abundant nesting habitat, food, and water. As was the case with passenger pigeons and unlike mourning doves, they prefer to nest in large colonies containing thousands, even millions of breeding adults.

Habitat.– Preferred nesting habitat consists of large tracts of nearly impenetrable native brush with cacti, thorny shrubs, and relatively short trees (10-20 feet high). From our observations, it appears that the densest, most tangled, and thorniest areas are sought out by the birds. Citrus orchards, mainly oranges, also are used for nesting by whitewings in Mexico, sometimes by



Left: Preferred nesting habitat consists of large tracts of nearly impenetrable native brush with cacti, thorny shrubs, and relatively short (10-20 ft high) trees. Former Panales colony northeast of Santander Jiménez, June 1976. *Photo by Roy Tomlinson.* Right: Several whitewing colonies use orange groves for nesting as the group is observing. *Photo by David Dolton.*

great numbers of birds. An apparent important component of their nesting habitat is the moderately close proximity to food and water. Although the doves eat a variety of native plant foods early in the nesting season, they appear to prefer domestic grains (e.g., grain sorghum, corn, safflower, and wheat) when they first become available in May. They have been observed to fly as far as 40 to 50 kilometers to feed in sorghum fields. They also will fly moderate distances to water, but our experience indicates they locate most colonies close to water. And, if the water disappears for some reason, the colony moves elsewhere.

Colonies.– Colonies vary in size from about 40 hectares to well over 1,000 hectares. Whenever large tracts of suitable habitat are available, large numbers of whitewings will colonize the area, sometimes by the millions of birds. If habitat is destroyed, the doves move elsewhere. However, if smaller tracts are left standing, some birds continue to nest there as long as the thorny habitat remains. In the 1970s, nesting density was very high in the best colonies, ranging from 800-1400 nests per hectare. A person could stand in one place in the middle of a colony and put his hand on two or three nests.

Timing.– Whitewings return to the breeding areas by mid-April and begin calling. They continue to call and begin to nest if the conditions are right, i.e., if it has rained sufficiently to allow the vegetation to leaf out properly. If not, they call without nesting until the rains have begun and the trees and shrubs offer enough protection to nest. The onset of nesting varies considerably from year to year. Thus, spring precipitation patterns partly control the nesting success. Eastern whitewings lay 2 eggs per nest (sometimes 1, rarely 3) and bring off 2 or 3 nests per year. Factors that affect nesting success are many. The extended drought between 1987 and 1990 combined with a heavy winter freeze in 1989 killed or curtailed growth of the shrubs and trees and caused almost complete nest failure in one or more years. Eggs and nestlings are predated by a large array of predators such as grackles, brown jays, Mexican crows, and snakes. We have also witnessed intensive die-offs of adults through pesticide poisoning.

By the middle of August, they have completed nesting and have formed into huge pre-migratory feeding flocks that usually roost in the nesting areas, but sometimes utilize other areas nearer to the food source. Some birds wander northward in search of food; nestlings banded in Tamaulipas in June and July have been recovered 300+ kilometers north in Texas in September. By mid-September, they have begun to migrate and are gone from the nesting areas by mid-October. By mid-November, they have arrived on the wintering grounds of Central America.

Vegetation History

Prior to 1960, Tamaulipas was covered with thousands of square kilometers of thorny woodlands, with several rivers originating in the Sierra Madre Oriental running through the heart of the forests to the Gulf of Mexico. In the 1960s, some clearing of the brush began to make room for agricultural development, since many soils of the Tamaulipan Biotic Province are fertile and suitable for agricultural use after clearing. At the same time, several rivers were being dammed to provide irrigation water to the agricultural interests. The dammed reservoirs quickly filled up and water was available for increasingly more farms.

In the late mid-1970s, a program called Revolución Verde (Green Revolution) was implemented to clear thousands of hectares of thorny brushland and convert it to cropland. In 1980, a new program called the Systema Alimentario Mexicano (SAM) was implemented as the underlying agricultural and nutritional plan for Mexico. As a result of these programs, brush clearing was accelerated and continues at a high rate to this day. Thousands upon thousands of hectares of native brush have been cleared to the detriment of wildlife. Since the 1980s, dryland and irrigated sorghum, corn, and sugar cane have become the predominant crops in the state.

In addition to deforestation, the remaining habitat has been subjected to two major freezes during the 1980s that killed or heavily damaged many of the preferred nesting trees, such as ebony. Also during the late 1980s and mid- to late 1990s, 2 extended droughts further negatively affected the vegetation.

Populations

Although the Texas Parks and Wildlife (TPWD) Department and U.S. Fish & Wildlife Service (Service) conducted some reconnaissance of Tamaulipan white-winged dove areas in the 1940s and 1950s, the first definitive work was done by doctoral candidate David Blankinship between 1966 and 1968. He systematically searched four northeastern States and found 8 major colonies, all in Tamaulipas. Subsequent studies of the colonies revealed that they ranged in size from about 22 ha to 3,200 ha and contained populations of nesting whitewings from about 40,000 to 1,600,000 individuals. In 1968, he estimated the breeding population of the 8 colonies to be 3,325,000 birds and the fall flight at 6,239,000. Even at that early date, he witnessed considerable economic development, such as clearing of forest habitat for agriculture and building of dams to create reservoirs to provide water for the crops.

Between 1971 and 1973, TPWD biologists revisited the areas and noted that two colonies had been destroyed by inundation from the dam construction and that 1 was no longer inhabited by whitewings because the nearby lake dam had been destroyed by a hurricane and the lake no longer contained water. The birds from these colonies most certainly moved to other areas and continued nesting. Most of the remaining colonies were situated near grain-farming areas, specifically sorghum. As whitewings differ from mourning doves in that they are adept at clinging to the heads of sorghum stalks and eating from the live plants, the farmers considered the huge numbers of grain eating birds to be "La Plaga" or the plague. They used many methods to discourage the birds from feeding in the fields. Among these were shooting firecrackers, firing zon guns, cracking bull whips, attaching white strips of cloth and pie pans to poles that fluttered in the wind, and even resorting to illegally killing truckloads of birds occasionally. One

Left: Parras de la Fuente whitewing colony adjacent to the Rio Soto la Marina south of Abasolo in June 1987. This area was designated an Ecological Reserve by the Mexican Government. Prior to 1960, Tamaulipas was covered with thousands of square kilometers of thorny woodlands, with several rivers running through the heart of the forests to the Gulf of Mexico. Right: Field near San Fernando in June 1980. Thousands of hectares of native brush have been cleared for agriculture to the detriment of white-winged dove nesting. *Photos by Roy Tomlinson.*

Left: Roy Tomlinson looking for whitewing nests along a transect in the Escandón colony east of Ciudad Mante. A 100 m long cord is unrolled and nests are located 5 m on either side. In the 1970s, nesting density was very high in the best colonies, ranging from 800-1400 nests per hectare. A person could stand in 1 place in the middle of a colony and put his hand on 2 or 3 nests. Right: Gary Waggerman searching for nests along a transect in the Parras de la Fuente colony south of Abasolo. *Photos by David Dolton, June 1993.*

landowner told us that he was considering clearing all the brush to solve this problem. The area was subsequently cleared. It was also noted that predation by crows, grackles, and other animals took a high toll of eggs and nestlings.

In the mid-1970s, Gary Waggerman (TPWD) and I (Service) began working in conjunction with the Mexican Dirección General de Fauna Silvestre (Fauna Silvestre) to further annually assess the populations in Tamaulipas. By this time, it was known that the whitewings had shifted their nesting areas, but the new areas were unknown. Over a period of about 8 years, several aerial surveys using Service light aircraft were conducted to attempt location of new colonies. Ground surveys by Fauna Silvestre personnel also were carried out sporadically. The surveys were highly successful and 4 major nesting colonies (3 in native brush and 1 in citrus) were located in this manner. In 1978, 23 colonies varying in size from a few hectares to thousands of hectares were known to exist, with an estimated fall population size of nearly 9 million birds. The cleared areas were rapidly being converted to grain sorghum farming (much of it irrigated) which created an excellent food source, and it was obvious that the whitewing populations were growing in response. However, by this time, the Revolución Verde had begun in earnest and native brush was being destroyed by the thousands of hectares.

By the mid-1980s, the number of colonies had been reduced from 23 to between 9 and 12, but all of the destroyed colonies were small and the remaining colonies had grown in size. The size of the fall population in 1983 was estimated to be between 12 and 16 million whitewings. At about this time, it was apparent that many landowners were very upset about crop depredations by whitewings. During nest transects at one colony, we found dozens of freshly deceased whitewings and grackles on the floor of the tract. Transect counts of the dead birds yielded an estimate of 2,500 to 5,500 dead whitewings throughout the entire colony. Later laboratory analysis revealed high concentrations of pesticides in the ingested foods and tissues of the birds. We surmised that the birds had been purposely poisoned to minimize depredations on the surrounding grain fields. At this time also, hunting was burgeoning and millions of birds were being legally taken during the hunting season.

In 1988 and 1989, a series of natural disasters adversely affected at least some of the nesting colonies. On a visit to what had been the second largest colony in the state in 1990 and thought to be the most secure of all, we

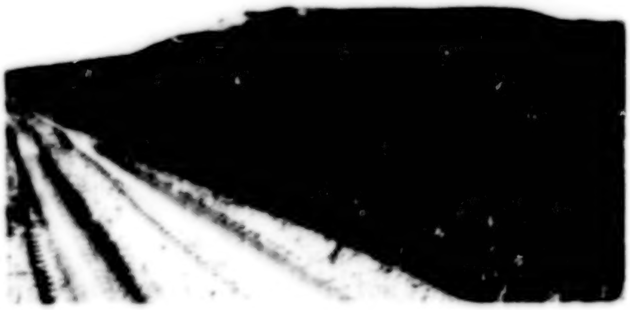
Whitewings differ from mourning doves in that they are adept at clinging to the heads of sorghum stalks and eating from live plants. *Photo by George B. Saunders*

discovered that the whitewings had completely abandoned the area. This vicinity had borne the brunt of Hurricane Gilbert in September 1988. High winds and flash flooding devastated the area. Except for this storm, drought conditions had been severe. Food and water were therefore scarce. Then the freeze hit the area hard in December 1989. Many mature (15-20 foot) ebonies favored for nesting were killed to the ground. Those that were not, were severely damaged. We later determined that many of the birds had moved to another location about 40 km to the north, but nest success throughout the State in 1990 was judged to be extremely low.

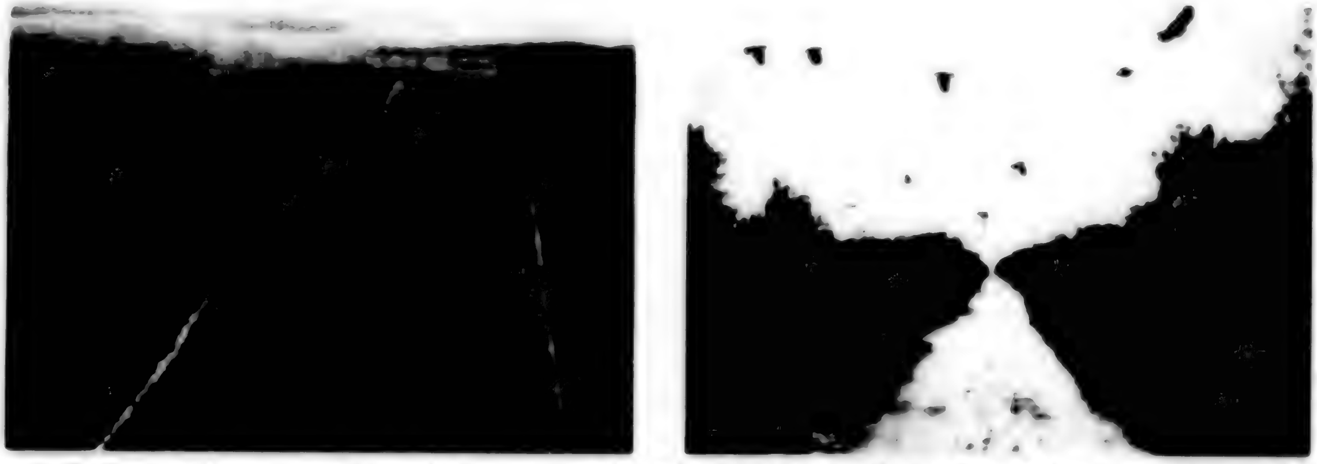
During reconnaissance in 1997, we subjectively concluded that the general status of whitewing populations was much reduced, probably by as much as 75% from the levels of the mid-1980s. The nesting habitat also had been reduced commensurately; the only major remaining habitat lay in the Central Zone, although small pockets of brush or citrus still existed in the other two zones. We could find only about 8 active colonies of any size. Most of them were small and only 2 were thought to contain large numbers of whitewings. During a similar investigation in 2001, only one major colony was located with populations estimated by Mexican biologists to be between 1 and 3 million birds in 2000. Another former colony was visited and the presence of moderate numbers of whitewings led us to believe that a large colony probably existed, but that we had not located the heart of it. Only 5 additional small colonies were detected. Without recent transect data for all known colonies with which to make estimates of the current population size, it is difficult to assess the true status of Tamaulipan white-winged doves. However, in our judgment, populations and habitat have declined substantially and will continue to do so in the future.

Hunting

Because of the huge numbers of white-winged doves in Mexico, hunting has been very popular since at least the 1960s. Whitewing seasons are permitted in Coahuila, Nuevo León, and Tamaulipas, with the highest hunting pressure in the latter State. Foreign hunters, especially Americans, make up the bulk of the whitewing hunters. In 1992, over 95% of the 5,528 estimated whitewing hunters in Tamaulipas were U.S. citizens and this proportion of American participants probably has held true since 1960. Prior to 1988, any American with proper credentials could go across the border on a tourist visa, get a Mexican hunting license, obtain a gun permit from the Campo Militar, and hunt doves anywhere he cared to in Mexico. Some time in the 1980s, each individual state issued hunting licenses and hunters were restricted to those states in which they had licenses. In 1988, Fauna Silvestre became concerned that too many white-winged doves were being harvested in Tamaulipas



Since the 1980s, grain sorghum has become one of the predominant crops in Tamaulipas. Grain crops, particularly sorghum, were beneficial to whitewings and provided food which enabled populations to increase in size during the 1980s. However, farmers considered the huge numbers of grain-eating whitewings to be a plague. They used many methods to discourage the birds from feeding in the fields including attaching white cloth to poles to flutter in the wind as shown here. *Photo by Roy Tomlinson*, June 1982 near San Fernando.



Left: The Panales colony northeast of Santander Jimenez, shown here in 1976, was once a very large and active colony, but now contains only scattered numbers of doves. This colony was completely destroyed in the late 1980s through clearing of all the native brush for agricultural development. Right: Whitewing numbers in the Parras de la Fuente colony near Abasolo have increased since 1997, the only colony to have done so. In a visit to the area in June 2001, vast numbers of doves were calling and flying overhead. Observations indicated that this colony appears to be the largest and densest one in Tamaulipas with an estimated population of 1.5 million whitewings. *Photos by Roy Tomlinson.*

and sought to limit the kill. Since then, Fauna Silvestre has stipulated that all foreign hunters in Mexico must have a contract with a licensed Hunting Organizer and be accompanied by a guide on each hunt to and from a hunting area. This unpopular regulation was established by Fauna Silvestre to gain better control over U.S. hunters. However, it resulted in increasing the cost of hunting, barring most hunters that wished to hunt unguided, and giving control over dove and other hunting in Mexico to Hunting Organizers.

Daily bag limits in Tamaulipas have varied during the past 30 years between 10 and 40 white-winged doves with possession limits generally 3 times the daily bag. Season length has typically been about 3 months, starting during the middle of August and ending the middle of November. Note that the migratory bird treaty with Mexico does not specify that hunting seasons must open no earlier than September first as is the case with the Migratory Bird Treaty with Canada. But, because whitewings complete nesting by the middle of August, little disruption of nesting by hunting occurs from the early season opening date.

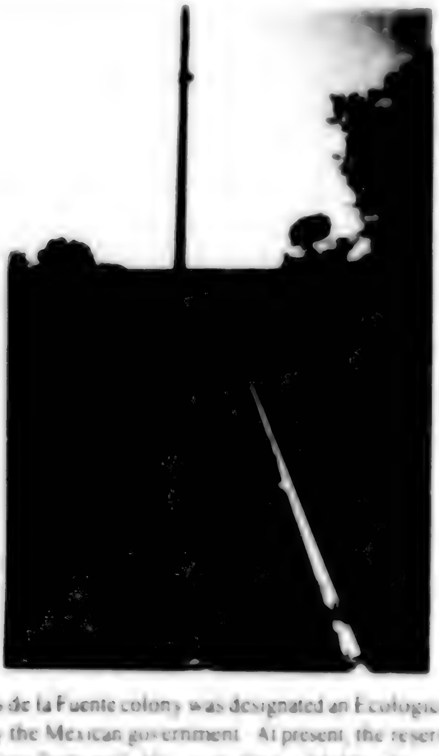
When American citizens hunt in other countries, they are required to declare the numbers of birds and mammals that they subsequently import into the United States. Declarations are recorded on the U.S. Fish & Wildlife Service Form 3-177. Border declarations allow hunters free entry of all legally-taken game birds and mammals. Copies of all completed forms from U.S.-Mexico border ports (including international airports) in Texas, New Mexico, and Arizona are routinely provided to the Service's Division of Migratory Bird Management (DMBM) in Denver. Since 1979, DMBM has extracted information on the numbers of migratory doves and pigeons declared at these ports and maintain the data in their files. White-winged doves are the major species declared at Texas border ports and the total numbers declared provide an index to the harvest in northeastern Mexico over the years.

As the documented numbers of nesting white-winged doves increased from the 1970s to the mid-1980s, the numbers of whitewings shot in Mexico and declared at border ports increased commensurately. In 1979, 419,000 whitewings were declared at Texas ports and gradually increased to slightly over 1 million in 1987. A survey of returning hunters indicated that they only brought back a third of those killed (the rest were given to bird boys or eaten at hunting camps). One hunter encountered at a check station at a border port told me that his party of 5 people expended 4 ½ cases of shells during their 5-day stay. They shot morning and evening, each averaging 125 whitewings in the a.m. and 75 in the p.m. They declared 72 birds per person (the legal possession limit was 75 birds per hunter).

The estimated kill by hunters rose from about 1,225,000 to over 3 million between 1979 and 1987. However, the numbers of declared whitewings between 1987 and 1988 dropped by almost half (1,025,000 to 592,000) and has continued to drop since. A low of only 43,000 was recorded in 1998. The reason for the precipitous drop between 1987 and 1988 was mainly because Fauna Silvestre installed the hunting organizer contract requirement in 1988, which limited the number of persons going into Mexico to hunt. The number of hunters declaring whitewings at the border declined from about 17,500 in 1987 to 11,200 in 1988, a drop of 36%. As the years have passed, the numbers of hunters have continued to drop and, on the face of it, one could conclude that the hunting guide requirement has been wholly responsible for the decline in declared white-winged doves. However, we know the dove population has decreased substantially as well and there have been fewer and fewer fields in which to hunt. Therefore, the declines in declared birds and hunters in the last several years are most probably a further reflection of the reduced numbers of white-winged doves in Tamaulipas.

Management

For years, we have recommended preserving the best colonies as refuges or management areas. In the late 1980s or early 1990s, Parras de la Fuente Colony (probably the largest) was designated an Ecological Reserve by the Mexican government. In order to make this a reality, the ejido (or commune) that managed the land for agricultural purposes was promised water and electricity and this was satisfied by about 1991. At present, the reserve appears to be working fairly well and thousands of birds were observed flying into and out of the colony in 2001. However, the new utilities could cause expansion of new human inhabitants into this remote area and possible destruction of habitat for expanded agricultural interests. At the present time, the one reserve, some biological investigations in one or two colonies, and annual hunting regulations are the only management tools being actively pursued.



The Parras de la Fuente colony was designated an Ecological Reserve in 1980 by the Mexican government. At present, the reserve appears to be working fairly well. However, the availability of new water and electricity could cause expansion of new human inhabitants into the remote area and possible destruction of habitat for expanded agricultural interests. *Photo by Roy Tomlinson, June 1993.*

During the 2001 survey in Tamaulipas, Service and TPWD biologists met with Mexican biologists to discuss future management of this resource. Judging from the discussions, the Fauna Silvestre representatives are most interested in instituting a viable white-winged management program and want to start by participating in the development of a management plan that would encompass the populations in Texas, Mexico, and Central American wintering areas. Such a plan has been discussed before and some initial work has been accomplished on it. But, to accelerate work on the plan, one or more individuals must be designated to coordinate and implement its development. In our opinion, a full-time position should be established immediately by the Service to be stationed in the Lower Rio Grande Valley of Texas. A counterpart in Fauna Silvestre should also be designated and the two would jointly coordinate activities, not only to write the plan but to carry out initial management objectives of the plan.

Some management can be accomplished before the plan is completed. The most important objective, in the view of most of the participants of the meeting, is to curtail destruction of native brush that now serve as nesting habitat for whitewings. Establishment of protected areas with adjacent food plots should be examined closely. However, establishment of reserves should be done cautiously as whitewings have been known to abandon apparently suitable habitat in the past. Another important objective would be the development of a mechanism to provide funding for the management work. Texas uses a "White-winged Dove Stamp" to provide funding and to allow for a sampling frame for a harvest survey to determine annual harvest by hunters. These and other actions can and should be implemented before the plan is completed.

Thus, the immediate designation of the Service coordinator is vital to the success of proper white-winged dove management in Mexico. Roy *moved to accept a recommendation that the Service establish such a position as soon as possible* (**Appendix E**). Fauna Silvestre is willing to participate and needs direction to continue. Time is wasting. The motion passed unanimously.

Sam Lawry (AZ) asked if the Mexicans might be interested in forming a white-winged dove Joint Venture in Sonora. Gary Waggerman replied that the Mexican federal government is trying to move all the control of wildlife to the various states and are using Tamaulipas as the first experiment. The Mexicans are definitely interested in doing as much as they can for wildlife. Gary added that he and Jay and others are working with Mexican biologists from Tamaulipas to develop a white-winged dove management plan for the 2 states.

GEORGE B. SAUNDERS AND WHITEWING SURVEYS IN MEXICO AND CENTRAL AMERICA

The following narrative was not presented at the meeting, but is included here by David Dolton to illustrate the experiences and hardships encountered by biologists conducting surveys in Mexico and Central America in the early 1940s.

One of the first biologists to study white-winged doves was Dr. George B. Saunders. George was one of 4 original flyway biologists hired by the U.S. Bureau of Biological Survey in the mid-1930s. As the Central Flyway biologist, he studied waterfowl, primarily, from Canada to Mexico. Beginning in 1939 and continuing to 1946, George conducted studies on white-winged doves in southern Texas and adjacent parts of northeastern Mexico to determine why the Texas population had decreased so much, and to identify what management methods would help to increase their numbers. The decrease was found to be due chiefly to the clearing of so much nesting cover and to excessive shooting seasons. Much of the resulting information was included in the book *Whitewings*.

Travel in Mexico in the early 1940s was quite an endeavor. George described a memorable trip to Guatemala and El Salvador in the book *Flyways* which included a round-trip train ride with a friend on a flatcar. Shipping the truck by rail was necessary as no adequate road to Guatemala existed in 1942, and they rode with it to be sure that it was not stripped at night while the train was stopped at sidings. They were en route 3 days each way. At each train stop, they were an unexpected sideshow for the villagers, from whom they obtained much useful information on wildlife. The following account by Dr. Saunders provides additional details of this trip.

The Tapachula Saga – Spring 1942

In *Flyways* (pp. 128-129) I wrote of the rewarding trip Dr. Charles Plummer and I had aboard a flatcar of a freight train from the city of Veracruz to Tapachula, Chiapas, Mexico. Charlie, a good friend, was an entomologist based at the Entomology Laboratory of USDA in Mexico City. His specialty was the investigation of insects injurious to citrus and other fruits, but he was also much interested in game birds. In past years when he was stationed at a hacienda near Victoria, Tamaulipas, he had been helpful in my field surveys in that state. In 1942, I obtained authorization for him to accompany me on the survey of white-winged doves in Guatemala and El Salvador. The USDA was interested also in his learning more about the insects injurious to citrus in those countries.

In my article in *Flyways*, I had told of our arrival in Tapachula about midnight and waking just enough to realize that our flatcar was shunted to a dark siding. To quote from that article, "Imagine our amazement upon awakening at daylight to see we were parked beside the main railway station, with several hundred Indians and other Mexicans for an audience. So our rising and dressing for the new day was witnessed by the largest and most interested crowd of the entire trip." I did not relate what happened to us that day and the next — that is the subject of this second episode.

Not long after we had risen and eaten a quick breakfast on the flatcar, a town official arrived, greeted us warmly, and said the city was posting a guard by our truck as a courtesy to the U.S. Government and to us. He said they knew we were weary from our long and dusty trip and would appreciate being able to bathe and rest at the hotel, knowing the truck was well guarded. We were pleased by this friendly greeting and generous offer. Later, after a good rest, we went to the city hall, met the officials in charge, presented our letters from Mexican federal authorities that described our scientific studies, and requested the helpful cooperation of all Mexican officials along our route. We thanked them for the helpful guard service and parted as friends, so we thought.

You can imagine our surprise the next day when we attempted to drive the truck off the flatcar and were told by the guard in charge that we would need a release order from city officials. Upon our arrival at that office, our surprise was compounded by the announcement that we owed 450 pesos for the guard service. Yes, it was a courtesy, but not a free one. We reminded the chief of the letters from Mexico City. Yes, they appreciated our scientific work, but Tapachula was not managed by federal authorities, and the guards had to be paid for their faithful duty.

After more than an hour of discussion we had talked the chief down to 150 pesos, as I recall. That charge, he said, was for duty by the officer on horseback, and since it was his own horse the charge could not be deleted.

By then, Charlie and I were tired of arguing and anxious to get on the road in time to cross into Guatemala before Customs closed. Because of this I agreed to pay the 150 pesos provided his office typed a statement on official letterhead saying the sum was paid under protest and that I would take the matter up with U.S. and Mexican authorities in Mexico City. He agreed and had the full statement typed, including mention of our letters of cooperative agreement from Mexican federal offices.

Within the hour Charlie and I were on our way over the few miles to the border and in another hour had crossed the Rio Suchiate, cleared Guatemalan customs, and were beginning our next adventure in a new country for us.

Little did we know that Tapachula was not through with us. We went ahead with our survey, which was highly successful. It was early April when we recrossed the Rio Suchiate and rolled into Tapachula. Our first stop was the railway station, where we requested a flatcar for the trip back to Veracruz. None was available, but the next day two arrived; we were told they were spoken for. Each day one or more flats came, but all were for the logging companies. By then we realized that they were going to the highest bidder. It was illegal, but Tapachula was so far from Mexico City, it was obvious that they could make their own rules.

Since the demand was much greater than the supply of flatcars, the bids were atrocious, but companies with mahogany logs to ship could afford the "mordidas" of hundreds of pesos above the legal charge. I could not, for the Fish and Wildlife Service accounting office knew what I had paid for the trip south to Tapachula. At this point we had visions of spending our declining years there.

Several days later an old wreck of a flatcar arrived and no one bid on it. We went back to the hotel, had a bottle of Dos Equis beer to drown our sorrow, and reflected on what we might have done to deserve exile in Tapachula. About then I had a sudden idea, tried it on Charlie, and with his assent we dashed back to the railway yard. After some rapid measuring we hurried to the station office and signed up for the "Old Wreck."

Our next dash was to the lumber yard where we bought 2 oak boards 2" x 12" wide and 12' long. They were delivered promptly, and within an hour we had them nailed to form a runway on what was left of the deck of the Old Wreck (see photo below).

That done, we heaved a sigh of relief and went on the double to the railway office to arrange for the car's hookup to the train leaving the next morning for Veracruz. "Well", said the agent, "your bill of lading requires the signatures of the 4 officers here. Since this is Semana Santa [Holy Week] they are on leave, but you

George Saunders' vehicle being transported from Tapachula to Veracruz, Mexico in May 1942 on a railroad flatcar he named the "Old Wreck." *Photo by George B. Saunders*

Travel in Mexico in the 1940s was not easy. On a trip from Abasolo to Soto la Marina, George Saunders encountered many places where much shoveling of fill had to be done before he could get through. *Photo by George B. Saunders*, July 1941.

can find them at home, I believe."

We did not find them at home. In fact we found ourselves scouring the town to get those signatures, each for a fee, of course. We cannot tactfully say where we finally located the fourth official, but in some similar quarters there would have been a red light.

About dawn next morning the freight train began its long journey back to Veracruz. It was the dirtiest ride I have ever had. Through the many large holes in the deck came dust, cinders, and fumes from the engine. Since we were the last car of 45 except for the caboose, it was unbelievable how much stuff was in the air around us. The square snout of the caboose created additional turbulence, so much that it was barely visible at times.

In spite of this accompanying dust storm we saw many interesting sights and chief among them were the flocks of whitewings migrating on a course paralleling the railroad and the mountain foothills. Their speed was better than ours as they winged their way toward the low saddle of the mountains at the Isthmus of Tehuantepec. There they would cross to the eastern foothills of the state of Veracruz and continue northward . Many birds bound for the Rio Grande Valley probably were in some of those flocks.

The flatcar was also our bedroom. At night one of us slept in the back of the truck and the other put a 5' x 8' sheet of plywood on the deck to cover the large holes. A light sleeping bag was unrolled on it and secured by a safety belt to prevent the occupant from being lost on one of the rough, sharp curves.

We saw flocks of whitewings more or less regularly from a few w miles west of Tapachula to near Arriaga, Chiapas. Most were from 70' to 200' in elevation, and numbered from 25 to 300 birds. Beyond Arriaga to the west, the foothills and mountains were farther inland from the coast and the railroad, and the flocks were no longer in view.

We did not see them again until the next morning when we crossed the Isthmus of Tehuantepec. In the sector of open, hilly country near Matías Romero we again saw migrating flocks of whitewings and mourning doves. The vegetation was grasses and shrubs, with scattered small trees, the last more numerous in the ravines. The flocks were headed NNW.

At the railway junction of Jesus Carranza, the Veracruz line branches to the northwest. En route from there to Tierra Blanca, where the route left the wooded lowlands and was near the foothills, we again saw migrant flocks of whitewings. Natives at villages near these foothills told us that alas blancas [whitewings] and huilotas [mourning doves] follow this route in spring and autumn.

We reached the city of Veracruz late in the afternoon, were shunted to a siding, and with the greatest pleasure disembarked from the Old Wreck. Our last view of it was of three railway workmen armed with crowbars hurriedly removing the oak boards that had made possible our escape from Tapachula. "Adios Tapachula, we shall never forget you."

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STATUS AND RANGE EXPANSION OF WHITE-WINGED DOVES IN TEXAS

by Gary Waggerman and Jay Roberson (TX)

From the turn of the 20th century, white-winged doves nested primarily in native riparian brush habitat along the Rio Grande River in the Lower Rio Grande Valley (LRGV) of Texas. Prior to the establishment of intensive farming, there was an estimated 2-4 million doves nesting here. This constituted an estimated 95% of the whitewings in Texas at that time. Much of the delta of the Rio Grande was cleared of native vegetation by the 1940s and some of the cleared land was planted to citrus. By the late 1940s, over half of all the nesting whitewings were utilizing citrus. A severe freeze in 1951 decimated the citrus and caused the birds to nest elsewhere, thus reducing the number of whitewings in the LRGV (Fig. 1).

Whitewing hunting has been a popular sport since the early 1900s in the LRGV and provided a major economic boost to the local economy. The number of hunters and the resulting harvest have declined dramatically in the past 2 decades as whitewing numbers have dropped in the Valley while increasing in other parts of Texas (Fig. 1). The birds are hunted in Mexico mostly by hunters from the United States.

A total of 171,220 whitewings were banded in Texas and Tamaulipas between 1950 and 1978. Mist nets proved quite effective in mature citrus groves. There has been some banding in Mexico in recent years, but most of the birds banded were nestlings. Most recoveries of banded birds shot by hunters came from northeastern Mexico down to Central America.

A Texas White-winged Dove Stamp was instituted in 1971 and has provided funds for land acquisition and research for most of the years since. For example, most of the tracts that constitute the Las Palomas Wildlife Management Area were purchased with stamp funds. The largest tract is the Ocotillo in the Trans Pecos area of West Texas and is about 2,200 acres.

Freezes which destroyed much of the citrus in 1983 and again in 1989 is believed to have led to the movement of whitewings from the LRGV further north into Texas. Residents of San Antonio began reporting nesting whitewings in 1986-87. The Texas Parks and Wildlife Department (TPWD) initiated surveys in the city in 1989 after the birds were becoming noticeably more numerous. Counts in other areas were initiated as the birds expanded their distribution and density. A poll of TPWD biologists in 1983 indicated the presence of whitewings in 37 of 254 counties. By 1998, whitewings had been observed in 147 counties.

Much of the citrus was not replanted after the 1989 freeze and development has reduced the total acreage even further. As a result, whitewings are now nesting primarily in native brush.

There has been some speculation that the spread of whitewings northward has been at the expense of other birds that were already there, but no definitive studies have been undertaken to determine if a problem exists. The Inca dove may be adversely affected by the whitewing expansion. In addition to whitewings, white-tipped doves are also expanding north. In 2001, they were reported just south of San Antonio, and near Houston and Del Rio.

White-winged doves are continuing to expand in range and density (Fig. 2). In 2002, the whitewing population

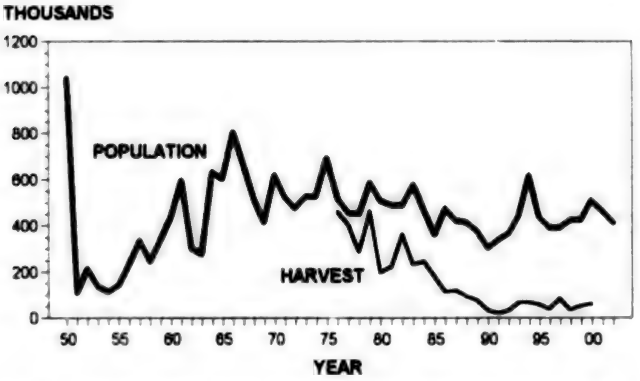

Fig. 1. White-winged dove breeding population and harvest in the Lower Rio Grande Valley of Texas, 1950-02.

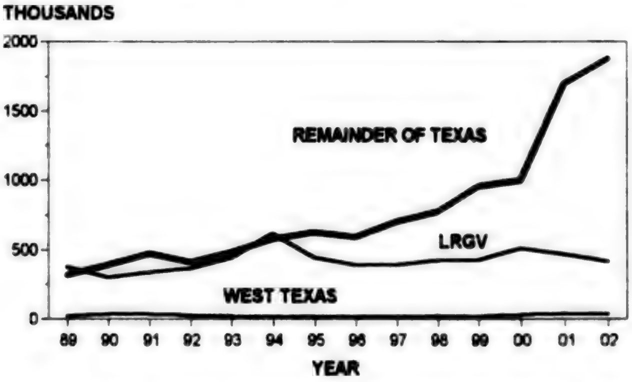

Fig. 2. White-winged dove breeding population by area in Texas, 1989-02.

for Texas was estimated to be over 2,329,000 birds, an increase of 5.7% from 2001. A more inclusive count in San Antonio documented more than 1 million birds. The expansion of whitewings northward and eastward from Texas has led to nesting being reported in Louisiana, Arkansas, Oklahoma, Kansas, and Missouri. They have been sighted in Colorado, Montana, Nebraska, Iowa, and Minnesota. Whitewings believed to be expanding north from Florida have been seen in Georgia, the Carolinas, and Pennsylvania.

HIGHLIGHTS OF WHITE-WINGED DOVE RESEARCH IN TEXAS

by Jay Roberson and Gary Waggerman (TX)

In the 1930s in Texas, some thought the white-winged dove, like its cousin the passenger pigeon, was headed for extinction. Today, its status is secure as evidenced by its phenomenal range expansion. Research failed to predict this expansion.

We have been asked to briefly review white-winged dove research conducted in Texas. Hopefully, when we're done you'll have a better understanding of what we've learned, and what more we need to learn. We'll review our accomplishments and failures.

In order to understand the need for and type of research conducted, it's important to understand the management and bio-political issues that have driven this research. Therefore, this presentation attempts to set the historical context, is retrospective in view, and chronological in its format (Past, Present and Future). It's helpful sometimes to step back and look at broader temporal and spatial scales. We can't see where we're headed until we've seen from where we've been.

PAST

Historical Population Status and Conservation Responses

In 1747, Edwards first described the species from a specimen taken in Jamaica. In 1767, Spanish missionary Fray Gaspar Jose De Solis first recorded it in Lower Rio Grande Valley (LRGV) of Texas. In 1844, John J. Audubon confirmed it there and in 1853, J. P. McCown found it abundant along Rio Grande. In 1866, H. E. Desser observed large numbers for sale in Brownsville and noted it was common north to Nueces River. In 1877, Sennett recorded it as very abundant along Rio Grande above Brownsville.

Whitewings increased in the LRGV following severe freezes in 1895 and 1899 due to agriculture. In 1945, a south Texas game warden estimated that there had been at least 4 million birds present by late 1920s. Subsequently, hunting became a popular and cultural tradition. But, by the late 1930s, numbers had declined to less than 100,000. This drastic decline stimulated intensive cooperative investigations into the causes beginning in 1939. Results indicated that clearing 1 million acres (90%) of native Tamaulipan thorn shrubland and over-hunting were the likely causes.

The people of the LRGV, the legislature and the Texas Game, Fish and Oyster Commission (Commission) acted immediately and drastically in 1941 to cut hunting. The season was reduced from up to 181 full days to 6 afternoons. The daily bag limit was reduced from 15 to 10. In 1927-28, the season had opened on July 1– the peak of the breeding season. After 1941, the season never opened before September 1. Basically, the same restricted seasons are in effect today.

The people, legislature, and Commission were not nearly as decisive regarding nesting habitat conservation. Several land acquisitions in the LRGV, including the property that became Santa Ana National Wildlife Refuge, were rejected due to lack of funds or legislative approval. However, the Bentsen's donated 575 acres adjacent to the Rio Grande to the Commission in 1944. Whitewings began nesting in citrus groves. By 1950, 80% of 1 million whitewings were nesting in citrus. This fact may have resulted in less emphasis or urgency placed on nesting habitat protection. However, today less than 10% of LRGV whitewings are estimated to be nesting in citrus and less than 5% of the LRGV is in federal or state protection.

In 1951, a major freeze killed most of the citrus in the LRGV. Whitewing breeding populations declined from 1 million to 110,000. The hunting season was closed from 1954-56. By 1961, breeding populations had increased to 600,000.

A severe freeze in 1962 reduced the population to 277,000 in 1963. Some of the displaced whitewings from these freezes nested successfully in Mexico and upper South Texas. By 1983 whitewings had again increased to about 600,000 when there was another severe freeze. In 1985, the season was closed. Biologists began noticing significant numbers of whitewings appearing in urban areas of Central Texas.

Hunting had became big business, increasing from an estimated $83,000 generated to local economies for goods and services in 1959 to $20 million in 1985. In 1989, there was another killing freeze in the LRGV. Since then, whitewing numbers have generally never recovered to these former numbers.

We conclude from historical trend analysis that breeding populations consistently declined, usually drastically, after major freezes. Hunting closures lagged behind freezes by as much 4 years. Early biologists thought the closures had a discernable positive impact on subsequent breeding population recovery. However, in several instances population indices had already increased when the closures went into effect. In some instances the index actually declined the year after the closure. So, we haven't learned what effect hunting had on breeding populations.

White-winged Dove Conservation Stamp

As early as 1941, a stamp had been proposed for $1 to generate habitat acquisition funds. However it was not carried to the legislature for approval. In 1943, biologists recommended acquiring 20 areas each totaling between 1000-5000 ac for nesting habitat.

From 1957-71, the Commission approved purchase of 5 parcels of land totaling 600 acres for whitewing habitat. This averaged 1 parcel acquired every 3 years or an average of 20 acres per year. The purchase price of this land was leveraged with federal aid so that the net cost to hunting license buyers was $47,000. Most of these parcels were in native brush when acquired.

Thirty years after first being proposed, a white-winged dove hunting stamp was enacted by the 62nd Texas Legislature. This was Texas' first state wildlife conservation stamp and the cost is $3.00. Revised in 1975, it now requires at least 50% of the funds generated to be expended on acquisition, lease or development of whitewing habitat. However, it provided much-needed funding for research and management as well.

Stamp Accomplishments.– About 1.5 million stamps have been sold from 1971–2001, generating about $8.4 million dedicated funds. As a result, 18 additional land tracts were purchased totaling 5,900 acres. This averages one tract acquired every 2 years or about 180 ac/year. Acquisition costs have been leveraged using federal aid so that the net cost to stamp buyers was $2.7 million or about $510/ac. This land now provides nesting and feeding habitat for about 18,000 whitewings per year or about 4% of the estimated annual LRGV breeding population.

Expenditures for Management and Research.– More money has been spent on land acquisition and development since the stamp was implemented than before. So, in that sense, it has accomplished its goal of providing more funding for nesting habitat acquisition and development. Total land acquired has been lower than expected partly because the land acquisition philosophy of the Commission has varied and the statute does not provide for condemnation. The Texas Parks and Wildlife Department must rely on willing sellers, which is driven by the economy. Stamp revenue has allowed research funding during the last 10 years that otherwise would not have been possible.

Texas Research Summary – 1940-90

Ten research projects have been completed over this 50-year period. Many agencies and private foundations cooperated including the Caesar Kleberg Wildlife Research Foundation, Welder Wildlife Foundation, World Wildlife Fund, and others. Early work had profound effects on management. Survey procedures were developed for breeding populations, nest success and harvest. Early researchers found significant nest predation by grackles (60-100%). We'll review only 3 of the most significant research efforts.

Movements and Mortality.– Probably the most significant study during this period was a long-term banding study begun by David Blankinship in the 1960s (Blankinship et al. 1972, George et al. 2000). The purpose of that study was to determine migration routes, movements, mortality and natal fidelity in Mexico and South Texas. However, whitewings were banded before and after this study with over 171,000 eastern whitewings being banded between 1950-78. Of these, 73,808 were banded in Texas. There were 2,415 first-year recoveries (3.3%). Of those banded in Texas, 83% were recovered in Texas and 12% in Mexico. Of those banded in Mexico, 14-36% were recovered in Texas. The mean recovery date for Texas-banded doves in

Mexico was October-November. Mean lifespan declined from 2.9yrs (1960-65) to 1.7yrs (1968-76). Survival rates were fairly high (60% for fledged young compared to 66% for adults). However, there were some major limitations to this study. Banding effort was not evenly distributed geographically or chronologically throughout the breeding areas, which limited comparisons over space and time. Survival and recovery rates lacked precision. Reporting rates were undetermined and unequal between recovery areas. Sex-specific survival and recovery rates were not determined.

Factors Affecting Feeding.– The purpose of this study was to determine the factors that affected the feeding patterns of white-winged doves. Dolton (1975) documented the changes in croplands in Texas and Mexico which were accompanied by changes in the feeding patterns of the doves. Prior to the late 1950s, whitewings had an abundant supply of domestic crops, primarily grain sorghum, in Texas during the late summer and fall. Comparatively little food was available in Mexico. At the time of Dolton's study, grain sorghum was harvested in Texas by mid-summer and comparatively little food was available. In contrast, corn was available in Mexico. This resulted in the reversal of whitewing feeding flights from Texas to Mexico. Dolton also found that domestic crops were the primary food used by whitewings. Nutritionally, croton and sunflower had about 2 ½ times the protein, 8 times the fat, and 3 times the trace minerals as corn and sorghum. However, fewer whitewings had croton and sunflower in their crops, and croton and sunflower comprised a smaller volume among collected doves. Corn and sorghum had 5 times the carbohydrate as sunflower and croton. Most whitewings fed within 5 miles of roosts so he recommended that if supplemental feed was grown, it should be done near roosts to be effective. He could not determine the reasons for certain field use over others. Decoys were ineffective in attracting whitewings to fields where they had not been feeding previously. Tannin content in common commercial sorghum varieties was low and not a factor in choice of feeding sites.

Electronic Counting Device.– This study was completed in 1977 and was only 1 of 2 funded by the Accelerated Research Program on whitewings in Texas. Its purpose was to determine a more objective means of obtaining an index of breeding population trend (Waechtler 1990). In Texas, whitewing population trends were monitored via auditory point counts. In the 1950s, biologists found a correlation between calling intensity (i.e., breaks in calling frequency or intermittence and volume) with actual active whitewing nest density during the peak of nesting. They assumed breeding population was directly and linearly related to calling rate and amplitude. Because of the density of vegetation and number of breeding birds in some colonies (>50pair/ac), visual counts were not possible. Actual active nest counts on a statewide scale would be impractical.

Whitewings and mourning doves differ in their calling rate, frequency, and amplitude. Mourning doves call at a rate of about 8 times in 3 minutes. Whitewings call at about an average rate of 8 times per minute. The frequency of the whitewing call is higher than that of the mourning dove. Mourning dove counts rarely exceed 10 separate birds calling per stop while whitewing counts frequently exceed 20 birds per stop. Unlike mourning doves, this makes it nearly impossible to differentiate individual whitewings.

A device was developed that estimated total numbers of calls. The resulting index explained 29% of the variation in actual active nests counted 2-3 weeks later during the nesting peak. They found a tradeoff of sensitivity and accuracy with density and proximity. Estimated counts of calls per 1-minute interval on consecutive days during the diurnal peak of calling differed by as much as 100%. Active nest density and calling intensity varied inversely in some colonies. The device was fairly resilient to jarring, heat and dust.

Texas Research Summary – 1991-2001

Nine research projects have been completed. All were contracted with universities to leverage stamp funds to the maximum extent possible. They have resulted in 16 peer-reviewed scientific publications. We will review 6 of those. The first 5 were conducted through Texas A&M University–Kingsville.

Bioenergetics of Reproduction.– The purpose of this study was to quantify the relationship between physiological condition, and quality and quantity of food ingested (Schacht et al. 1995). The research hypothesis was that multiple nest attempts were limited by ability to maintain a positive energy balance. Researchers found that production from multiple nest attempts was not limited by energy or protein in the diet during average to above-average rainfall years. Lipid, protein, and ash masses differed among laying, hatching and pre-fledging nest stages, but not between first and second nest attempts. Patterns of changes in lipid mass suggested that doves were capable of maintaining positive energy balance. Heavily-used habitats containing high-energy grains and seeds accounted for improvement in condition through the nesting cycles. They recommended conserving native woodlands as a primary source of food during pre-nesting and early first-nesting periods when grain was limited, and planting high-quality grain that would mature during the arrival and pre-nesting period in mid- to late-April.

Factors Affecting Reproduction.– The purpose of this study was to determine the importance of grain availability, grackle density, woodlot size, woody vegetation height, canopy cover, dominant over story species and foliage density on productivity (Hayslette et al. 1996). They found that woodlands and parklands, dominated by Texas ebony and Texas sugarberry, were the most important nesting habitats. Reforestation should focus on these species although productivity didn't seem to be limited by lack of suitable breeding habitat. Reproduction did not appear to be limited by grackle predation, woodlot size, habitat or feed availability. Further experimentation is needed because the 2 years of this study happened to have average to above-average precipitation.

Mitochondrial DNA Variation.– The purpose of this study was to compare the number and distribution of subspecies based on morphologic and genetic differences from historic and recently expanded range. They found only 2 subspecies within historic range in the United States instead of 4. Therefore, the management for 4 distinct subspecies is probably not warranted. Further research into differences in recruitment and ecology of these 2 subspecies is needed to determine suitable management strategies. The source of populations expanding into Central and Northern Texas appears to be from the eastern race.

Maintaining wildlife species and subspecies diversity is a primary ecological tenet because it is promotes individual and population fitness or resilience to catastrophic events. Ecological fitness promotes reproduction and reproduction is necessary for recreational use. The Endangered Species Act includes subspecies as legitimate subjects for protection.

Sub-lethal Effects of Pesticides.– The purpose of this study was to describe sub-lethal effects of field-applied methyl parathion (MP) on reproduction and document exposure route. MP was a commonly used organophosphate pesticide used on cotton in the area. They found that up to 79% of the carcasses collected in 1991 (n=28) and 1992 (n=33) had exposure to anticholinesterase (anti-ChE) substances. Plasma ChE was not useful in predicting brain ChE activity. MP concentration in drinking water had greater impact on ChE activity than the amount of MP actually ingested or duration of exposure. Whitewings detected and avoided MP in drinking water as concentration increased. Exposure to MP reduced time spent incubating, number of eggs laid per pair and number of young fledged per pair. However, there was no evidence of direct exposure through contaminated drinking water.

Identification and Evaluation of Parasitic Diseases.– The purpose of this study was to determine prevalence, intensity, and abundance of *Trichomonas gallinae*, blood protozoa, and helminthes (Glass 1999). They found that 99% of 171 whitewings tested were positive for *T. gallinae* but none exhibited typical oral lesions indicating little effect on juveniles/adults. It is unknown what impact *T. gallinae* has on other dove species or how expanding population influences host-parasite relationships. They found 75% were positive for *Haemoproteus columbae*, 15% were positive for *Haemoproteus sacharovi*, and 18% were positive for *Plasmodium spp*.

Evaluate Transmitter Attachment Methods.– The purpose of this study at Sul Ross State University was to determine ease of attachment, physiological, pathological and reproductive effects, duration of retention of 4 different transmitter attachment techniques. Radio telemetry is one of the most efficient and cost-effective means of obtaining large volume demographic data on Columbid species such as number of successful nesting attempts per breeding pair, number of successfully fledged young per breeding pair per season, breeding season length, home range size or daily activity size, and daily survival rates. However, the transmitter itself should not bias any of these parameters. Most early radio telemetry studies assumed no negligible effect of the transmitter on the demographic parameters without measurement.

Problems with external attachment methods have included short retention time, uneven transmitter weight attachment method failure, and increased energy costs possibly due to increased mass and drag.

Before various demographic parameters were obtained for this study, it was important to evaluate the effect of the transmitter attachment method on physiology, pathology, reproduction and behavior. There was no significant difference in behavior or reproduction between implant methods. Researchers found that the average retention time for transmitters attached with adhesive was 9.3 days. Subjects became entangled in backpack harnesses. Subcutaneous implants were less intrusive than intra-abdominal implants. No difference in time-activity budgets, reproductive behavior, egg production and onset of laying between methods could be detected.

PRESENT

Need for Research

The first step in understanding how to increase wildlife populations is to understand why they decline or why they are limited from increasing. "Conservation" or "Management" to increase wildlife populations implies predictable outcomes to treatments or actions. Tools of the conservationist or manager include Aldo Leopold's "gun, ax, plow, cow, and fire." "Management" outcomes depend upon the goal or objective, the type, number, class of the 'tool', the season of year, time of day and duration of the "tool", the geography, soil, climate, size, shape and pattern of the treatment area. Research evaluates or validates the uniformity, consistency and predictability of the outcome of a desired biological parameter given these known factors.

We still don't understand whitewing breeding population response to most treatments and tools or why they are expanding their range. If we don't understand why they are increasing, then there's a good chance we can't do anything about their decline (i.e. Mexico and LRGV). We don't understand the importance of feeding or nesting habitat to nest density and success. Therefore, we don't know whether to spend most of our limited stamp funds on feeding sites (and what size, shape, and location) or brush tracts for nesting. We don't understand the effects of hunting on a subsequent year's breeding populations. If we decrease the bag limit from 12 to 8, or season length from 60 to 45 days, what real impact will that have on breeding populations the next year?

Management Questions

Currently, we have 3 management questions that are driving our research and for which we have research plans. First, why haven't whitewings increased in the LRGV to early 1980s levels (i.e., 600,000)? Is this a result of habitat fragmentation, change in feed type, availability and juxtaposition or something else?

Second, what are the effects of hunting on breeding populations? Traditional approaches to migratory bird management have relied heavily on harvest estimates and recruitment indices, such as age ratios in the harvest, to infer status of populations and justify changing hunting regulations. However, population declines can occur without commensurate decreases in harvest or changes in age ratios if hunting pressure increases or survival rates decrease. A more reliable approach relies on demographic models that incorporate recruitment and survival rates to estimate population growth rate. Demographic modeling is one of the first steps necessary to determine whether habitat, weather, predators, hunting or other factors are affecting populations. But they depend upon accurate estimates of population demographics. Do we have reliable sensitive surveys to measure response to a change in hunting regulations? How do we derive current reliable estimates of survival and recruitment?

Third, why have whitewings been so successful recently in colonizing urban areas outside their historic range? Could this be the result of micro- or macro-climatic changes, predation, contaminants, disease, parasites, or other things? We know very little about survival and recruitment in urban settings. Research is needed to answer these new management questions.

Current Research

Currently we have 6 projects totaling $1.4 million in total project costs. All are financed by the stamp fund and contracted with in-state universities. We will review 3.

Foraging Behavior.– The purpose of this study is to determine if feeding field type, size, and juxtaposition with nesting areas affects nest density and success and if, where, and what type of food influences use. The management need driving this research is to determine if leasing private cropland will benefit whitewings.

Survey Methods for Estimating Breeding Populations. The purpose of this study is to develop a reliable statewide breeding population survey technique. The management need driving this research is to determine the population size or trend accurately and precisely so that we will be able to measure response. Problems with our current survey include: (1) The methodology differs between urban areas.; (2) The transects or stops are systematically located in known use areas and extrapolated to the entire urban areas which may over-estimate breeding population numbers.; (3) The formula for estimating actual breeding pairs is based upon 50-year-old rural data that cannot be replicated.; (4) The area encompassed by a transect is indefinite because the stops are located at varying distances along the transect and hearing distance of 0.25 mi along the entire length of the transect is verified. Thus, this would tend to underestimate the total breeding whitewings in the area.; and, (5) The current survey method does not determine either relative trends from year to another or actual breeding population size.

Until we determine the accuracy and precision of current auditory surveys of breeding whitewings we will not be able to determine long-term population trends or develop necessary new urban surveys.

Landscape Scale Habitat Changes in the LRGV.– The purpose of this study is to develop a GIS-based landscape model that will identify important habitat components, and quantify crucial spatial and temporal relationships between those components. The management need driving this research is to increase recruitment and survival by managing against possible limiting habitat factors.

Unlike mourning doves, whitewings have not historically been considered habitat generalists. They have been considered more constrained to subtropical regions with specific nesting substrate preferences and shorter breeding season lengths. So, habitat or niche requirements have traditionally been considered limiting for this species. A spatial model will hopefully help managers understand the relative importance of various landscape components to whitewing recruitment and survival.

FUTURE

We suggest that an appropriate management program for whitewings in Texas for the near future must include reliable standardized statewide surveys of breeding population change, reliable estimates of survival and recruitment, and, if feed is found limiting, conservation easements and leases are needed statewide on private lands adjacent to urban areas. We need to consolidate existing public lands for efficiency. These needs are ambitious and expensive, so we recommend continued stamp funding for research, surveys and possible habitat conservation.

Reproductive behavior has been examined in detail, but we still don't have critical demographics such as average number of successful re-nesting attempts, annual or period survival and recruitment rates. We don't know how to manage for multiple successful attempts or to increase recruitment. Nor do we understand colonial-nesting behavior given its apparent lower recruitment and higher predation rates.

We now know that optimum nesting parameters were not as clearly understood in the 1940s as we thought. Whitewings are much more adaptable than early biologists would have ever imagined. Therefore, with the increase in research costs over time, it's even more important that future habitat research be carefully planned and monitored.

Unrestricted harvest is probably detrimental to long-term population viability, but the effects of modern, very restricted season lengths and bag limits are unknown. We need estimates of survival and recruitment rates to more accurately measure hunting effects.

Nutritional requirements relative to foraging strategy are not understood. Feed may be limiting whitewing reproduction and survival, but we need to understand how and why before leasing or acquiring habitat.

Whatever we do, it will probably require International coordination, planning and rigorous adherence to protocols. It took 30 years from the time the problem of nesting habitat loss was identified until a workable solution was implemented (stamp). This was as long as it took to extirpate the passenger pigeon from Texas. Thankfully, whitewings were more adaptable and fecund than their cousins. So, biological need alone does not stimulate results. It takes open and transparent government not fettered by political or philosophical impediments to provide information to citizens and let them respond through their elected representatives. This takes time so "risk aversive conservatism" is probably a good philosophy when it comes to whitewing hunting regulations.

If we are going to continue land acquisition for whitewings, it should be scientifically defensible and consistent over at least a 10-year period. Accomplishments of the acquisition program should be advertised and include good value purchases, local whitewing use, wildlife diversity, and areas to demonstrate good science and conservation practices.

We should learn from the deficiencies in the acquisition program including the limited number and quantity purchased due to inconsistent philosophies regarding the purpose and need for public ownership of private land. We recommend a systematic integrated planning effort for whitewing habitat acquisition.

Acknowledgements

We wish to express our thanks to current and previous cooperators. Caesar Kleberg Wildlife Research Institute, TX A&M University- Kingsville: D. Hewitt, W. Kuvlesky, F. Hernandez, E. Redeker, A. Fedynich, S. Henke, S. Park, K. Hogan, T. Tacha; TX A&M University–College Station: N. Silvy, M. Peterson and W. Ben Wu; Southwest Texas State University: J. Baccus; Texas Tech University: L. Smith; and many biologists spent the better part of their careers working on this species and advocating its proper management to those who perhaps, didn't want to hear it: Bill Kiel, George Saunders, Val Lehman, E.G. Marsh, Pierce Uzzell, Clarence Cottam, Jim Scuddy, David Blankinship, Ted Clark, John Rappole, Roy Tomlinson, Jim Dunks, Hal Irby, Ron George, David Dolton, Tony Gallucci, Michael Small, David Swanson, David Brown, Phil Evans, and many overworked and underpaid graduate students…Thank you.

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Roy Tomlinson commented that when he and others visited the whitewing colonies in Mexico last year, high numbers of doves were calling. However, due to a drought, there was very little nesting. If a survey had been conducted using the level of calling as an indication of nesting activity, the results would have been very misleading. Consequently, some type of breeding survey needs to be developed that is more accurate. Jay agreed that there are problems with the current survey method and that some type of correction factor needs to be developed.

OLD BUSINESS

Gary Myers (TN), Chair of the Bird Conservation Committee, informed the group that doves and woodcock were inadvertently omitted from the Integrated Bird Conservation section of the National Conservation Needs selected by IAFWA for the FY2002 multistate Conservation Grants Program. The revised need is as follows: The challenges, significance, and conservation opportunities associated with "integrated bird conservation" are becoming increasingly apparent and remain a top priority of the state fish and wildlife agencies. The need for coordination and implementation of such national and international efforts including the North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, Partners in Flight Plan, North American Waterbird Conservation Plan, as well as interest in ***mourning doves, American woodcock*** [emphasis added], and resident game birds is great. State fish and wildlife agencies, and their partners need assistance in addressing the challenges associated with integrated bird conservation and accelerating implementation of such programs. Projects are needed that will create greater conservation efficiencies; address the concerns and desires of the various bird related groups; lead to more effective conservation actions implemented within a landscape context; better and more directly address the diverse array of bird conservation priorities; address integration of resident wildlife conservation actions with those of migratory birds at the state level, and foster partnerships at all levels.

NEW BUSINESS

There was no new business.

APPROVAL OF MINUTES

The *Fall Meeting Minutes – 2001* were approved unanimously without any corrections or additions.

ADJOURNMENT

The meeting adjourned at 5:10 p.m.

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Appendix A.

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION

BUREAU OF WILDLIFE MANAGEMENT ◆ 2001 Elmerton Avenue ◆ Harrisburg, PA 17110-9797

MEMORANDUM

DATE:	March 29, 2002
SUBJECT	Selection of Webless Migratory Game Bird Research Projects
TO:	Ronnie R. George, Chairman MSUGB Working Group
FROM:	Robert C. Boyd, Chairman WMGBR Review Committee

Robert C. Boyd

Nationwide, 6 proposals totaling $758,730 were submitted to the 2002 Webless Migratory Game Bird Research (WMGBR) Program, requesting $322,662 in funds. These proposals were reviewed and ranked within four regions by regional technical committees. The WMGBR Review Committee further reviewed the proposals and the regional evaluations, and approved the highest priority projects as shown below.

> An Evaluation of Survey Methods for Monitoring Interior Populations of Band-tailed Pigeons. Courtney J. Conway and Chris Kirkpatrick, USGS BRD AZ Cooperative Fish and Wildlife Research Unit, Univ. of Arizona, Tucson, AZ. WMGBR funds: $38,895; Total project cost: $95,795.
>
> Identification of Additional Mineral Sites in California for Use in a Rangewide Population Index for Pacific Coast Band-tailed Pigeons. Michael L. Casazza, Dennis L. Orthmeyer and Cory Overton, USGS BRD Western Ecological Research Center, Dixon, CA. WMGBR funds: $22,225; Total project cost: $46,125.
>
> Developing a Survival Model for Rocky Mountain Population of Greater Sandhill Cranes. Roderick C. Drewien, Wayan, ID, and William L. Kendall, USGS BRD Patuxent Wildlife Research Center, Laurel, MD. WMBGR funds: $32,000; Total project cost: $90,000.
>
> Mourning Dove Population Dynamics and Harvest in Hell Creek Wildlife Management Area, Mississippi. Francisco J. Vilella, USGS BRD MS Cooperative Fish and Wildlife Research Unit, Mississippi State Univ., Mississippi State, MS. WMGBR funds: $53,964; Total project cost: $128,904.

The total WMGBR cost of the four projects is $147,084. The remaining balance of $2,916 will be given to Gary Krapu's sandhill crane satellite telemetry project to purchase an additional transmitter.

From 1995 to 2002, 41 projects and 1 workshop with total costs of $5,553,182 have been supported with $1,502,267 in WMGBR funds.

The WMGBR Review Committee consisted of myself, David Dolton, and the 4 Regional Technical Committee chairmen: Billy Dukes (SC), Southeast; Brad Allen (ME), Northeast; John Schultz (MO), Central; and Steve Tessman (WY), Western. On behalf of the Review Committee, I greatly appreciate the efforts of all those persons who submitted proposals and who assisted with regional reviews.

Appendix B.

TEXAS
PARKS &
WILDLIFE

COMMISSIONERS

KATHARINE ARMSTRONG IDSAL
CHAIRMAN SAN ANTONIO

ERNEST ANGELO JR
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MARK E WATSON JR
SAN ANTONIO

LEE M BASS
CHAIRMAN-EMERITUS
FORT WORTH

ROBERT L COOK
EXECUTIVE DIRECTOR

March 28, 2002

Dr. Steven Williams, Director
U.S. Fish and Wildlife Service
Main Interior Building
1949 C Street NW
Washington, D.C. 20240

Dear Dr. ~~Williams~~ Steve:

The Migratory Shore and Upland Game Bird Working Group (MSUGB) of the Bird Conservation Committee of the International Association of Fish and Wildlife Agencies strongly supports increasing the funding for the Webless Migratory Game Bird Research (WMGBR) Program to $1,000,000 annually beginning in FY 2004. We recommend that new funds be requested in the Director's FY 2004 budget submission to Congress rather than reallocation of existing funds.

The WMGBR Program is invaluable in providing much-needed funding for webless species that traditionally have received less attention than waterfowl. To date, $1,355,183 in WMGBR Program funds have be been expended to support 37 research projects and 1 workshop with a total value of $5,192,358 (see WMGBR Program, Project Abstract -2001 Report by David D. Dolton).

Since WMGBR Program projects must have at least one third of their costs paid with non-federal dollars, WMGBR Program funds have often functioned as "seed money" that have attracted major funding from multiple partners making this a very cost-effective and productive program.

Please support the WMGBR Program at $1,000,000 annually beginning in FY 2004. Your interest and support of this program is appreciated.

Ron George

Ron George, Chairman
Migratory Shore and Upland Game Bird Working Group, IAFWA

Enc.

cc: Gary Myers, Chairman, Bird Conservation Committee, IAFWA

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Appendix C.

Recommendation to IAFWA: Conceptual support for a national mourning dove pilot reward band study

Recommendation:

1. The IAFWA-Migratory Shore and Upland Game Bird Working Group, and the IAFWA-Bird Conservation Committee conceptually support a 3-year (2003-2005) national pilot reward band study to estimate current band reporting rates, which can be used to convert direct recovery rate estimates to harvest rates from other regions, and serve as a pilot study for future coordinated nationwide mourning dove banding

2. Requests USFWS field staff (through coordination of the Regional Migratory Bird Coordinators) to assist with mourning dove trapping on federal lands in cooperating states where applicable

3. Requests that USGS-BRD assess funding and staffing needs for the Bird Banding Laboratory in anticipation of supporting not only the proposed pilot reward banding study, but also an anticipated future nationwide mourning dove banding program

Justification: In 1998, the USFWS notified the Flyway Councils that if mourning dove population trends continued downward, harvest framework reductions would be implemented The USFWS further stated that harvest management strategies needed to be developed that included decision criteria explicitly stating when regulatory changes will be made, clearly define what the changes will be, and provide estimates of the effect of the various regulatory options Recently, the various mourning dove management unit technical committees have demonstrated agreement to actively pursue a more comprehensive and coordinated information-driven approach to improve future mourning dove harvest management decisions Efforts are currently underway to develop population models for each of the three mourning dove management units using historical data However, modern population parameter estimates will be eventually needed to use the population models in the harvest management decision process

Each mourning dove technical committee has formally endorsed the proposed project Currently, 23 states have tentatively volunteered to participate in the study pending final administrative approval Costs associated with reward bands are proposed to be provided by the Webless Migratory Game Bird Research program, and trapping cost will be provided by volunteering states This is a 3-year study (2003-2005) where regular bands will used the first year, regular and reward bands the second year, and regular bands again during the third year Results from this study will be used in future mourning dove banding studies which will provide estimates of harvest, survival, and population size

Adopted by:

IAFWA Migratory Shore and Upland Game Bird Working Group
Dallas, Texas
April 4, 2002

Appendix D.

Recommendation to IAFWA: Increase awareness of the potential negative impacts of spent lead (Pb) shot in upland settings, and increase research funding to assess that potential impact

Recommendation:

The IAFWA-Migratory Shore and Upland Game Bird Working Group, and the IAFWA-Bird Conservation Committee requests the USFWS and USGS-BRD to

1. Assume a leadership role in assessing the potential toxic impacts of spent Pb shot on wildlife resulting from upland hunting (e g , mourning doves, American woodcock)

2. Increase awareness of the potential negative impacts given existing information, especially for those upland hunting areas where spent Pb shot has been concentrated (e g , managed dove shooting fields)

3. Fully fund the Webless Migratory Game Bird Research program (WMGBR) to assist with funding of studies dealing with Pb shot, non-toxic shot, and associated wildlife relationships, which will provide improved information for use in developing future management actions

Justification: Past experience dictates that the most prudent approach in dealing with spent Pb shot in upland hunting situations would be to develop a reliable foundation of knowledge providing the basis for possible future management actions Some states have already banned Pb shot for hunting activities on some public lands (e g , Indiana, Nebraska, South Dakota) Much uncertainty exists, however, regarding the broad ecological impacts of spent Pb shot resulting from upland hunting activities (e g , negative population impacts on a wide range of surface feeding birds), and/or potential lethality issues related to non-toxic shot An improved understanding will provide more reliable knowledge to guide future management With full funding of the WMGBR program, it is anticipated that research projects assessing Pb shot, non-toxic shot, and associated wildlife relationships would successfully compete for funding

Adopted by:

IAFWA Migratory Shore and Upland Game Bird Working Group
Dallas, Texas
April 4, 2002

Appendix E.

Recommendation to IAFWA: Designation of white-winged dove specialist by the U.S. Fish and Wildlife Service.

Recommendation: The Migratory Shore and Upland Game Bird Working Group and the Bird Conservation Committee recommend that the U.S. Fish and Wildlife Service (Service) create a white-winged dove specialist position, located in the Lower Rio Grande Valley of Texas, to oversee development of a white-winged dove management plan and coordinate efforts between Mexico and Texas to implement initial management objectives of the plan.

Justification: Annual contact with Mexican biologists and cooperative surveys of Mexican white-winged dove colonies by Service biologists was discontinued in 1994. In the interim, whitewing populations and habitat have continued to decrease substantially. Mexican biologists have expressed interest in working to develop a cooperative white-winged dove management plan which will be of interest to both countries. Initial work has been accomplished on a draft plan, but to accelerate work on the plan, one or more individuals must be designated to coordinate and implement its development. Since the Service has the ultimate responsibility for whitewing management in the United States and Mexican biologists have requested assistance in developing a plan for their country, the Service should take a lead in this task. A biologist position should be created specifically to address this issue. Stationing the biologist in the Lower Grande Valley of Texas would greatly facilitate interaction between Mexican and Texas biologists.

Adopted by:

IAFWA Migratory Shore and Upland Game Bird Working Group
Dallas, Texas
April 4, 2002

IAFWA Bird Conservation Committee
Dallas, Texas
April 5, 2002

Migratory Shore and Upland Game Bird Working Group

Fall Meeting Minutes

International Association of Fish and Wildlife Agencies
Bird Conservation Committee
Big Sky, Montana
September 19, 2002

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INTRODUCTION

These minutes were prepared by Chairman Ron George (TX) from notes taken by Vice Chairman Jeff Ver Steeg (CO) during the meeting and from reports submitted by several speakers. A taped recording of the meeting was not made. Ron noted the absence of Secretary David Dolton (USFWS) due to travel restrictions. Ron opened the meeting at 1:35 p.m.

WEBLESS MIGRATORY GAME BIRD RESEARCH

Ron George reported on behalf of David Dolton that $150,000 was available again this year to help fund webless migratory game bird research. Jim Woehr (WMI) informed the group that the WMI will be announcing a meeting of all bird groups to be held in late January 2003 (maybe on Superbowl Sunday). The purpose of the meeting is to compile all funding requests for federal fiscal years 2005-2007.

DOVE ISSUES

Ron also briefly reported (again on behalf of David Dolton) on the pilot mourning dove reward band project. Sam Lawry (AZ) urged the inclusion of Mexico in the toll-free band-reporting project (perhaps to include Spanish-speaking operators). Sam was asked to draft a letter to the Service along those lines (to be signed by Gary Myers, Chairman of the Bird Conservation Committee). Scot Williamson (WMI) recommended the development of a central website for information on West Nile virus and hunting.

HARVEST INFORMATION PROGRAM

Jeff Ver Steeg updated attendees on the status of the Harvest Information Program (HIP) report and recommendations. The report was reviewed and approved by Gary Myers, Chair of the Bird Conservation Committee; Scott Yaich, Chair of the Waterfowl Working Group; and, Ron George, Chair of the MSUGB Working Group. State fish and wildlife agency directors were sent a memo from Max Peterson (IAFWA) on 24 June 2002 indicating these approvals and advising the directors that Gary Myers will present the recommendations for approval at the business meeting of the IAFWA in September 2002. Max Peterson also noted that Duane Shroufe (AZ) had agreed to chair an Ad Hoc Committee on HIP Improvement that will be charged with addressing and implementing the recommendations (if approved by the Directors at the September meeting). Duane Shroufe was asked to include on the new Ad Hoc Committee representatives of the Bird Conservation and Law Enforcement Committees, the Education, Outreach, and Diversity Committee, and the Automated Wildlife Data Systems Task Force (as well as any others deemed appropriate). Duane has made those contacts, but has delayed action until the Directors vote on the recommendations to be presented by Gary Myers. Jeff urged members of the MSUGB Working Group to brief their respective directors prior to the business meeting and to encourage their directors to support the recommendations.

Ron George added that USFWS Director Steve Williams wrote Gary Myers on 9 September 2002 expressing the intent of the Service to enforce the HIP registration requirement uniformly this fall and asking for the assistance of the states in efforts to enforce HIP compliance, educating hunters and license vendors, and minimizing the number of exempt hunters.

WATERBIRD PLAN

Jennifer Wheeler (USFWS) handed out copies of the document "Waterbird Conservation for the Americas – Version 1". The second version is expected in 2004. Ron George asked everyone to take the report home, read it and advise him of any thoughts or concerns. The state of Montana was inadvertently omitted from the list of states in the Intermountain West Waterbird Conservation Planning Region. Jim Woehr agreed to continue as the MSUGB Working Group's liaison with the Waterbird folks.

NORTH AMERICAN BIRD CONSERVATION INITIATIVE

David Pashley announced that the MSUGB Working Group had been offered a seat on the NABCI Steering Committee. Ron George indicated he had agreed to represent the Working Group. Steering Committee members have the option to appoint a staff person as well. These individuals meet more frequently than the Steering Committee and they generally meet in the Washington, D.C. area. Ron will investigate appointing a "staff" person. The Steering Committee wants to maintain a close working relationship with the Resident Game Bird Working Group as well. David mentioned that a group known as the Species Assessment Working Group (which includes representatives of Canada, Mexico and the United States) is focusing on a scientifically-based process for establishing the status of species populations. David suggested the MSUGB Working Group interact with the Species Assessment Working Group.

NON-TOXIC SHOT TASK FORCE

John Smith (MO) was unable to attend, but he will make a report at the spring meeting. The Committee is reviewing data provided by Hawk Watch International concerning lead poisoning in raptors. Scot Williamson mentioned seeing an e-mail regarding the potential requirement for using non-toxic shot to take marsh birds. Apparently the Atlantic Flyway may be taking up that issue. A discussion of Cooperative Non-toxic Shotgunning Education Program (CONSEP) followed. It was also noted that the Humane Society of the U.S. had prepared a letter of concern about wounding losses related to hunting.

WOODCOCK TASK FORCE

Dan Dessecker (RGF) reported for Jim Kelley (USFWS) who could not attend. The Task Force will meet in March at the North American conference. They are attempting to map changes in woodcock density and habitat conditions over time. Dan noted that Jim Kelley detected a 10-12% error rate in aging/sexing woodcock at the woodcock wing bee in Baton Rouge. The error tended to mistakenly age juvenile females as adults. Bob Blohm indicated that Jim Kelley's duties regarding light geese are expected to conclude by January 2003, freeing Jim up to spend considerably more time on woodcock issues. Ron George mentioned the letters he had sent to Regional Foresters and Forest Supervisors regarding planning for early-successional species like the woodcock (see example in **Appendix A**). Replies are in **Appendices B-E**. Jim Woehr suggested sending follow-up letters to those who failed to respond to the first mailing which Ron did in September.

OLD BUSINESS

None raised.

NEW BUSINESS

Sam Lawry (AZ) expressed concern about "jurisdiction" over species like the band-tailed pigeon. The group discussed for some time the relationship between Partners in Flight, the Resident Game Bird Working Group, and the MSUGB Working Group regarding such species as bobwhite quail, band-tailed pigeons, and others. The primary concern seemed to stem from a lack of understanding about the processes used by others to identify species of special concern. Vernon Bevill was asked to head up an Ad Hoc Committee of the MSUGB Working Group to review the methods used by others to rank species of concern (especially those that fall under the "umbrella" of the MSUGB Working Group). Vernon was asked to report back to this Working Group at the next meeting in March (North American conference). Vernon indicated he intended to recruit Frank Montalbano (FL), Sam Lawry and Mike Johnson (ND). Jim Woehr noted that priorities will ultimately be determined by combining strict biological information on population status with both cultural and socio-economic measures of importance to generate an overall "species value".

ADJOURNMENT

The meeting adjourned at 3:30 p.m.

Ronnie R. George

Ronnie R. George, Chairman
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
Tel: 512/389-4778
FAX: 512/389-4398
E-mail: Ron.George@tpwd.state.tx.us

Appendix A.

TEXAS
PARKS &
WILDLIFE

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LEE M. BASS
CHAIRMAN-EMERITUS
FORT WORTH

ROBERT L. COOK
EXECUTIVE DIRECTOR

June 11, 2002

Mr. Randy Moore, Regional Forester
USDA Forest Service
310 W. Wisconsin Ave., Suite 500
Milwaukee, WI 53203

Dear Mr. Moore:

The Migratory Shore and Upland Game Bird (MSUGB) Working Group of the International Association of Fish and Wildlife Agencies (IAFWA) urges the Forest Service to proactively address the declines of early-successional forest habitats and associated wildlife by increasing efforts to sustain aspen forest communities on National Forests in the Great Lakes region. These wildlife species include the American woodcock; an important game bird, and the golden-winged warbler; one of the most imperiled songbirds in the eastern United States.

In 1997, a Woodcock Task Force was commissioned by IAFWA to investigate the long-term declines of woodcock populations. This Task Force was comprised of federal, state, and nongovernmental wildlife biologists from across the country with demonstrated expertise in the ecology and management of forest wildlife.

The Task Force concluded: "Across the primary breeding range of the American woodcock in the last 30 years, there have been sharp reductions in old fields and early-successional forest habitats and large increases in older, more mature forests. The population declines of woodcock and other birds of early-successional forests, along with the generally increasing trend of forest interior species clearly reflect these habitat changes."

National Forest System lands play an important role in the conservation of American woodcock and early-successional wildlife. The aspen forests of the Great Lakes region afford the single greatest opportunity for the conservation of wildlife dependent upon early-successional forest habitats. It is, therefore, disturbing to note that the regeneration of aspen forest habitats has declined precipitously over the past decade on National Forests throughout this region.

Forest Service data show that the annual regeneration of aspen communities has consistently been well short of Forest Plan objectives over the past decade on all National Forests in this region, except for the Superior National Forest. These departures from existing Forest Plan direction range from 54% below projection on the Ottawa (1999), to 92% below Plan goal on the Chequamegon-Nicolet (1999).

The MSUGB would appreciate learning of the Forest Service's plans to address the ongoing declines of aspen forest habitats and associated early-successional wildlife in the revision of existing Forest Plans, and, more importantly, the subsequent management of National Forest System Lands in the Great Lakes region. If you have any questions, please don't hesitate to contact my office at (512) 389-4778.

Sincerely,

Ronnie George ⑧

Ronnie George, Chairman
MSUGB Working Group, IAFWA

RG:nlg

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Appendix B.

United States Department of Agriculture **Forest Service** **Hiawatha National Forest Supervisor's Office**
2727 N. Lincoln Rd
Escanaba, MI 49829
906-786-4062

File Code: 1600
Date: July 3, 2002

Mr. Ronnie George
Chairman
MSUGB Working Group, IAFWA
4200 Smith School Road
Austin, TX 78744-3291

Dear Mr. George:

Thank you for your letter of June 11, 2002, which expressed interest in the management of early successional forest habitats on the Hiawatha National Forest.

The Hiawatha is comprised of a diverse array of forest types and other habitats including red/white pine, jack pine, northern hardwoods, cedar, spruce-fir-swamp conifer, openlands and aspen. The latter comprises approximately 13 percent of the land base. From 1986 through 2001, the Hiawatha harvested an average of 958 acres of aspen per year, or 68 percent of Forest Plan acreage projections.

As you are aware, the Forest is in the initial stages of preparing for Forest Plan revision. During the course of this process we will be evaluating the viability of a host of terrestrial and aquatic species, including those tied to early forests, such as the American woodcock, golden-winged warbler, and others. We will also be re-evaluating the percentages and allocations of acres by forest type, based on wildlife habitat and viability needs, and social/ economic concerns.

Thank you for your interest in the Hiawatha National Forest. If you have any further questions, please do not hesitate to contact Paul Makela, Forest Wildlife Biologist at (906)789-3374.

Sincerely,

For Mike [illegible]
THOMAS A SCHMIDT
Forest Supervisor

Appendix C.

United States Department of Agriculture **Forest Service** **Eastern Region**

310 West Wisconsin Ave.
Suite 580
Milwaukee, WI 53203

File Code: 2610/1920
Date: July 10, 2002

Mr. Ronnie George
Chairman, MSUGB Working Group, IAFWA
Texas Parks and Wildlife
4200 Smith School Road
Austin, TX 78744-3291

Dear Mr. George:

I received your letter regarding your concern for the decline of early-successional habitat and associated wildlife in the national forests of the Great Lakes region.

The importance of aspen forest communities to early-successional wildlife is well recognized. This past November, Forest Service personnel from the Washington Office, Regional Office, and various Lake States Forests met with biologists from the Ruffed Grouse Society to start addressing this concern.

Issues developed at this meeting included the following:

1. Public education and Agency awareness
2. Development of information sources and material distribution
3. Improve communication between the Forest Service and the Ruffed Grouse Society
4. Current Forest Plan implementation and the revision process
5. Riparian management
6. Monitoring
7. Flexibility in management prescriptions
8. Differentiate between Forest standards and guidelines
9. Management prescriptions that specifically benefit early-successional species

Action items were drafted for the first six issues. The next step is to finalize these items and develop an action plan involving people from the Washington Office, Regional Office, various Lake States Forests and representatives from the Ruffed Grouse Society to address early-successional habitat.

I want to thank you for your interest in national forest management. Please direct any further questions to Steve Kessler, Regional Director for Wildlife and Fish Programs, at (414) 297-1905 or skessler@fs.fed.us.

Sincerely,

RANDY MOORE
Regional Forester

cc:
Steve Kessler

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Appendix D.

United States Department of Agriculture
Forest Service
Ottawa National Forest Supervisor's Office
E6248 US2
Ironwood, MI 49938
(906) 932-1330
(906) 932-0122 (FAX)
(906) 932-0301 (TTY)

File Code: 1920-2/2600
Date: July 11, 2002

Ronnie George
Chairman
MSUGB Working Group, IAFWA
4200 Smith School Road
Austin, TX 78744-3291

Dear Mr. George:

Thank you for your letter dated June 11, 2002 expressing concerns about the American woodcock and aspen management. The Ottawa National Forest has been active in assessing opportunities and managing for early successional habitat that benefits American woodcock and other species. For example, see the attached document that describes a recent "challenge cost share" project with the Ruffed Grouse Society. In addition, I have enclosed our Monitoring and Evaluation Report that discusses the status of the American woodcock and aspen management on the forest.

The role and management of young forests will also be addressed as part of the Ottawa's Forest Plan Revision effort, scheduled to begin in FY 2003. I have placed your name on the Forest Plan Revision mailing list so that you will receive future information on this effort.

If you need additional information, please contact our Forest Planner, Bob Brenner at 906-932-1330 ext. 317.

Sincerely,

Bob Lueckel

ROBERT LUECKEL
Forest Supervisor

Appendix E.

United States Department of Agriculture
Forest Service
Huron-Manistee National Forests
1755 South Mitchell St.
Cadillac, MI 49601
231-775-2421 (voice)
231-775-5551 (fax)
231-775-3183 (TTY)

File Code: 1920-2/26001920/2600
Date: June 28, 2002

Ronnie George
Chairman
Migratory Shore and Upland Game Bird Working
Group, IAFWA
4200 Smith School Road
Austin, TX 78744-3291

Dear Mr. George:

Thank you for your interest in the management of the Huron-Manistee National Forests. This memo is in response to your June 11, 2002, letter that expressed concerns about the American woodcock and aspen management related to the Huron-Manistee National Forests.

In response to your concerns, I have placed your name on the Forest Plan Revision mailing list, which is scheduled to begin this fall, and the Forests' National Environmental Policy Act Quarterly Report mailing list, which informs the public of our upcoming projects. I have also enclosed a copy of our 2000 Monitoring and Evaluation Report, which discusses the status of the American woodcock (page 32) and aspen management (pages 21-22, 31-34, 36-37, 43-44, and 51-52); The Huron-Manistee National Forests 2001 Accomplishment Report; and a copy of our Latest National Environmental Policy Act Quarterly Report. As new reports become available, I will forward them to you.

Please contact Rex Ennis, Forests' Wildlife Program Manager, if you need additional information. Again, thank you for your interest in the management of the Huron-Manistee National Forests.

Sincerely,

JAMES L. SCHULER
Forest Supervisor

Enclosures

*U.S. GOVERNMENT PRINTING OFFICE: 2003-574-287

MIGRATORY SHORE AND UPLAND GAME BIRD WORKING GROUP
MEMBERS – 2002

Member	Affiliation
□*Ronnie R. George, Chairman	Texas Parks and Wildlife Department
□*Jeff Ver Steeg, Vice-chairman	Colorado Division of Wildlife
□ David D. Dolton, Secretary	U.S. Fish and Wildlife Service
Robert Abernethy	The National Wild Turkey Federation, Inc.
*Jon M. Andrew	U.S. Fish and Wildlife Service
Brad Bales	Oregon Department of Fish and Wildlife
□*W. Vernon Bevill	Texas Parks and Wildlife Department
□ Robert C. Boyd	Pennsylvania Game Commission
James M. Corven	Manomet Center for Conservation Sciences
*Daniel R. Dessecker	The Ruffed Grouse Society
□ Jim Douglas	Nebraska Game and Parks Commission
Richard Elden	Michigan Department of Natural Resources (retired)
□ John Frampton	Scouth Carolina Department of Natural Resources
William H. Goudy	The Ruffed Grouse Society
□ David Hayden	Alabama Department of Conservation and Natural Resources
□*Mike Johnson	North Dakota Game and Fish Department
□*Joe Kramer	Kansas Department of Wildlife and Parks
□*Sam Lawry	Arizona Game and Fish Department
Dave Luukkonen	Michigan Department of Natural Resources
Brent Manning	Illinois Department of Natural Resources
*Larry Marcum	Tennessee Wildlife Resources Agency
□ Daniel G. McAuley	USGS–BRD, Patuxent Wildlife Research Center
□*Ross Melinchuk	Ducks Unlimited, Inc.
*Mike Olinde	Louisiana Department of Wildlife & Fisheries
□ Cynthia Ragland	USDA Forest Service
□ Ralph Rogers	North American Falconers' Association
□*Pat Ruble	Ohio Division of Wildlife
□ John H. Schulz	Missouri Department of Conservation
Duane L. Shroufe	Arizona Game and Fish Department
□ John W. Smith	Missouri Department of Conservation
□ William F. Stevens	Federal Cartridge Company
*James R. Woehr	Wildlife Management Institute

□ Attended meeting on April 4, 2002.

* Attended meeting on September 19, 2002.

END

10-02-03